657

Virginia Medical Monthly

Vol. 79, No. 12
WHOLE No. 1206

RICHMOND, VA., DECEMBER, 1952

$2.00 A YEAR
25 CENTS A COPY

GUEST EDITORIAL

New Hope for Hearts

THE American Heart Association was started in 1923 by a group of doctors interested primarily in heart disease. The organization stimulated much scientific interest and research, but remained a purely scientific body until 1947 when it was reorganized into a voluntary health agency and any interested laymen, as well as physicians, were invited to become members. The growth of the American Heart Association in regard to members and contributions since 1947 has been very encouraging. In the fiscal year 1948-1949 the American Heart Association and its affiliates spent $750,000 on research; in 1951 it is estimated that approximately $1,300,000 was spent. The American Heart Association cooperates with the National Heart Institute, which is a division of the U.S. Public Health Service. We would like to emphasize here that both of these organizations have a place, but that in the interest of private medicine and private enterprise we physicians must give our whole hearted support to the American Heart Association which represents a truly great voluntary agency striving to further research in cardiovascular disease, and also to educate the public about the facts of heart disease, and to furnish further knowledge to physicians and nurses concerning the great problems of cardiovascular disease and what is being done in an attempt to solve these problems. Disease of the heart and circulation are the leading cause of death in the United States, killing more than the next five leading causes of death combined. Cardiovascular diseases were three times more deadly than cancer and killed five times more people than accidents, eleven times more than tuberculosis and sixteen times more than diabetes.

In our own Commonwealth of Virginia in the year 1950, there were 29,680 deaths from all causes. Diseases of the heart and blood vessels caused 14,826 deaths.

What is the American Heart Association and its affiliates doing about this great problem?

Since the time of its reorganization in 1948 from a purely scientific body to a national voluntary health agency, there have been three main objectives, and the funds so generously contributed by the American public have been spent according to these principles. These objectives are I. Research, II. Education, III. Community Service.

I. RESEARCH. 25% of each dollar contributed to the local or state affiliates of the American Heart Association must be sent to the national office of the American Heart Association in New York. It is the policy of the national office to earmark 50% of its total budget for research purposes. The lives of millions of Americans will depend upon how successfully and how quickly research fighters against the heart diseases can arrive at their goals. Through its research program the American Heart Association is supporting the best available scientific minds and talents and encouraging continued search to solve the great riddles of heart disease in the hope of saving

XUM

lives and preventing suffering and the shameful waste of human and economic resources. Certain very important advances have been made in heart research in the past few years, especially in the discovery of new drugs and surgical techniques. The American Heart Association made medical research history when it appointed Dr. Victor Lorber as the first career investigator. In addition the Association supports established investigators, Research Fellows and Grants-in-Aid. Many affiliated chapters support local research projects, in fact affiliates of the Association spent $600,000 on research last year.

II. EDUCATION is being provided to two great groups, 1. The Professional and 2. The lay public.

The Association through its educational program is providing and interpreting to the medical and allied profession the latest information available from the laboratory and clinic. This is carried out through the scientific council and scientific sessions of the American Heart Association, the Council for High Blood Pressure Research, the Council on Rheumatic Fever and Congenital Heart Disease, and also through professional publications and various manuals and guides and professional films.

Through the public education program the Association makes a great effort to reach the minds and hearts of the general public. Emphasis is placed upon action against heart disease. "Scare appeals" are shunned and efforts are made to eliminate unfounded anxieties so as not to create cardiac anxiety neuroses.

III. COMMUNITY SERVICE. There are approximately fifty-seven local affiliated heart associations in key areas of the country, developing community cardiac programs directly serving the public. These community services include improvement of diagnostic facilities, coordination of medical, nursing welfare and other services, rehabilitation of industrial workers with heart disease and projects for easing the burden of housewives with cardiovascular diseases. It is on the community level that the entire heart program meets its ultimate test in terms of practical benefit to the physicians and the heart patient.

The Richmond Chapter of the American Heart Association was organized in February 1949 and opened a full time office in January 1950. The Virginia Heart Association was organized in 1950 and now has the following associated chapters: Arlington-Fairfax Chapter, Piedmont Chapter, Danville Chapter, Richmond Chapter, Peninsula Chapter, Roanoke Valley Chapter, and Tidewater Chapter. Thus, one sees that we are quite a young organization, especially when compared with the tuberculosis association and other established groups. Our program in Virginia is planned along the general principles of the American Heart Association.

The state organization per se has not as yet a research project, however it is to be remembered that 25% of all funds collected for the Heart Fund in Virginia are sent directly to the national offices, and of this, 50% is spent for research. The Richmond Chapter helped the multitest clinic in 1950 and is helping in multitest program for the indigent patient this coming year. We have been greatly encouraged by a generous gift from Reynolds Metals Company, to be earmarked for a special research project on cholesterol and arteriosclerosis to be carried out at the Medical College of Virginia. It is hoped that more local research projects can be carried out in the future.

We are attempting to carry on the educational program by sending and having pamphlets available, such as recommended by the American Heart Association, for example "Know Your Heart", "Diseases of the Heart", "Heart Quiz", etc. To the interested physicians we are trying to send "Modern Concepts of C-V Disease" pub-

XUM

lished by the American Heart Association. We have had a seminar on heart diseases for nurses. We plan to have an annual or semi-annual Scientific Meeting to which all doctors are cordially invited and in the near future we hope to have at least one nationally known cardiologist on each program. We also hope to establish cardiac clinics for indigent patients in certain localities that do not have the facilities at present. The individual community services and programs will, of course, depend on the local organization, however it is the desire of the American Heart Association and the Virginia Heart Association to cooperate and help in every possible way.

We feel that there is "New Hope for Hearts" and earnestly request help, cooperation and suggestions from the practicing physicians of Virginia.

PAUL D. CAMP, M.D.

EDITOR'S NOTE: Dr. Camp is a prominent cardiologist of Richmond, Virginia, and is President of the Virginia Heart Association.

Floral Eponym

AMSONIA TABERNAEMONTANA

TABERNAEMONTANUS, JACOB THEODOR, 1520-1590

This German physician and botanist, physician to the Elector and Bishop at Speyer and the Palsgrave at Zweibrücken, shared with Dr. Amson, a Virginia doctor, in having *A. tabernaemontana* named for him.

Amsonia is a genus of American and Asiatic shrubs. *A. tabernaemontana* is a bushy perennial that grows from New Jersey to Texas.

XUM

THE CLINICAL MANIFESTATIONS AND TREATMENT OF CHRONIC HYPOPARATHYROIDISM*

REVERDY H. JONES, JR., M.D.†
Roanoke, Virginia.

Hypoparathyroidism most commonly results from the accidental removal of or damage to the parathyroid glands during a thyroid operation. Less frequently, hypoparathyroidism is seen following the excision of an excessive amount of parathyroid substance for hyperparathyroidism. Most often the disturbance is mild and temporary and results from a transitory injury to the parathyroid tissue or a disturbance of its blood supply, but the condition may persist and result in chronic hypoparathyroidism. The incidence of the acute manifestations of hypoparathyroidism following thyroid surgery has been reported as from 0.05 to 2 per cent[1,2], while latent manifestations of postoperative hypoparathyroidism have been reported as high as from 9 to 15 per cent of cases[2]. The higher instances occur in the larger, more technically difficult goiters and particularly in operations for thyroid malignancy.

Idiopathic hypoparathyroidism is a much more rare condition, and, as the name implies, the cause is unknown. The condition has been associated with moniliasis[3], with Addison's disease[4], and has been reported in the child of a hyperparathyroid mother[5]. However, no etiological relationship has been established. Pseudohypoparathyroidism[6] has been described in which apparently a sufficient amount of parathyroid hormone is present but there is a failure of its proper utilization by the peripheral tissue.

The most common clinical manifestation of chronic hypoparathyroidism is the symptom complex known as tetany. This condition may be present in the manifest form in either the acute or chronic phase, or it may be of the latent variety where no frank symptoms are present but where these can be elicited by peripheral nerve stimulation. The symptomatology of chronic parathyroid deficiency, whether idiopathic or postoperative, is quite varied and often not easily recognized. Tetany occurs in either the acute, chronic, or latent form and may manifest itself by an almost constant tingling and spasm of the extremities or by episodes of numbness, carpopedal spasm and cramps, and, in the more severe cases, by laryngeal spasm, psychic aberrations, and convulsions. In chronic hypoparathyroidism with latent tetany, the patient may demonstrate one or more of the following phenomena which will prove of help in establishing the diagnosis:

Chvostek's sign may be demonstrated by tapping the trunk of the facial nerve just anterior to the external auditory meatus or just below the zygomatic process. A positive reaction consists of a momentary twitching of the facial muscles, particularly those of the upper lip. This is an extremely reliable test and is almost always positive in untreated hypoparathyroidism although it may occur occasionally in normal individuals.

Trousseau's sign is elicited by applying sufficient pressure on the arm with a tourniquet or preferably a sphygmomanometer to halt the circulation. The pressure should be maintained above the systolic level for at least three minutes and a positive reaction is characterized by the production of carpopedal spasm. This test is not as reliable as Chvostek's sign and may frequently be absent in well authenticated cases.

Erb's sign is of more academic interest and is seldom used. It consists of demonstrating an increased excitability of the motor nerves to stimulation with galvanic current.

Multiple ectodermal changes are very frequently encountered in chronic hypoparathyroidism[7]. Lenticular opacities are the most common complication and with the use of the slit lamp these can often be demonstrated at a very early stage. If the blood calcium is kept normal, cataracts do not develop, but, once formed, they do not regress under treatment[8]. Atrophic changes occur in the finger and toe nails. The skin may become dry and coarse and the hair on the head and in the axillary and pubic region is often scant. Most interesting are the changes which occur in the teeth. When hypoparathyroidism begins before all the teeth have entirely formed, hypoplasia, blunting, and enamel defects occur in those

†From the Medical Service, Lewis-Gale Hospital, Roanoke, Virginia.
*Read before the Virginia Section of the American College of Physicians, February 28, 1951, Roanoke, Virginia.

teeth not fully developed while those which have matured remain unaffected[9,10].

The sole manifestation of hypoparathyroidism may be generalized convulsions and at times these patients have been treated over extended periods for epilepsy before the correct diagnosis was established. Repeated convulsions usually lead to mental retardation which happily is not entirely irreversible with treatment[11], and the convulsions themselves can be relieved following control of the parathyroid insufficiency[12].

Symmetrical bilateral calcification of the basal ganglia of the brain tissue in hypoparathyroidism gives a characteristic roentgen ray which was described as early as 1935[13,14]. This calcification is not limited to patients with parathyroid insufficiency, however, and has been observed in patients with a previous history of encephalitis, toxoplasmosis, or mental deficiency since birth. That the calcification itself is not responsible for the convulsions in hypoparathyroidism is demonstrated by the fact that cases have been reported which were relieved of their tetanic episodes with appropriate treatment but subsequent X-rays revealed persisting basal ganglia calcification[11].

Women with chronic mild hypoparathyroidism will often report an exacerbation of symptoms during the menses [15,16] and occasionally will voluntarily increase their calcium intake during these periods. The loss of blood with a transient lowering of the serum calcium may account for this phenomenon. Latent hypoparathyroidism is not usually aggravated by pregnancy, but lactation with its marked drain on the body calcium stores will often precipitate frank symptoms in a patient with latent parathyroid deficiency. This is understandable when one realizes that over four times as much calcium is lost from the mother's body during nine months of lactation as is lost during pregnancy[17].

Other bizarre symptoms may be the outstanding clinical features found in chronic hypoparathyroidism. Esophageal spasm suspicious of carcinoma of the esophagus has been reported[18]. Muscular weakness, fatigue, and general malaise[19] may be the cardinal manifestations and the combination of papilledema and convulsions has led to the mistaken diagnosis of brain tumor in a patient with parathyroid insufficiency[20]. While acute hypoparathyroidism with tetany following an operation is relatively easy to detect, the chronic manifestations of hypoparathyroidism are more elusive as evidenced by the fact that a number of these patients continue for years without specific treatment.

When suspected clinically, the diagnosis of hypoparathyroidism may be confirmed by the typical blood chemical changes. Characteristically, there is a low serum calcium, a high serum phosphorus, a decreased amount or absence of urinary calcium, and a low or normal serum alkaline phosphatase. Serum calcium and phosphorus determinations are subject to considerable laboratory variation under even the best of circumstances and repeated observations of these values should be obtained before arriving at the final diagnosis. The Sulkowitch reagent[21] is extremely useful in determining grossly the amount of urinary calcium, which is greatly reduced or absent in untreated hypoparathyroidism. With this reagent, one can very easily differentiate (a) urine with practically no calcium, (b) urine with small or normal amounts of calcium, and (c) urine with large amounts of calcium. There is a characteristic prolongation of the Q-T interval of the electrocardiogram as a result of hypocalcemia[22], and the bones in hypoparathyroidism are definitely more dense than normal although the X-ray changes are not outstanding.

The differential diagnosis of hypoparathyroidism is in essence the differential diagnosis of tetany. Generally speaking, the two main causes of tetany are hypocalcemia and alkalosis. The most common cause of tetany due to alkalosis is hyperventilation, while less frequently alkalosis caused by the ingestion of large amounts of alkali or the loss of an excessive amount of gastric juice may occur. In these conditions the serum calcium and phosphorus values remain normal but there are changes in the CO-2 combining power of the serum. Besides hypoparathyroidism, hypocalcemia with tetany may occur in rickets or osteomalacia, in steatorrhea, and in chronic renal insufficiency with phosphate retention. In rickets, osteomalacia, and steatorrhea the low serum calcium level is associated with a normal or even a low serum phosphorus and the serum alkaline phosphatase is elevated. In chronic renal insufficiency, besides the urea retention, one finds an elevated phosphorus accompanied by hypocalcemia. However, the degree of hypocalcemia is not as marked in relation to the phosphate elevation as in hypopara-

XUM

thyroidism and tetany is relatively rare because of the associated acidosis. Other causes of convulsions as a brain tumor or idiopathic epilepsy are to be considered in the differential diagnosis and in any patient who has previously had a thyroidectomy and who presents vague and bizarre symptoms, hypoparathyroidism must be entertained as a clinical possibility. Table I charts the chemical changes found in these various conditions which must be considered in the differential diagnosis of hypoparathyroidism and particularly when one is encountered with the more rare idiopathic variety where the history of a previous thyroid operation is absent.

Type of Tetany	Serum Calcium	Serum Phosphorus	pH	Urinary Calcium	Calcium in feces
Parathyroid	Low	High	Normal	Low	Normal
Infantile	Low or Normal	Usually Low May be High or Normal	Normal	Low	High
Osteomalacia	Low	Usually Low May be Normal	Normal	Low	High
Steatorrhea	Low	Usually Low May be Normal	Normal	Low	High
Alkalotic	Normal	Normal	High	Normal	Normal
Nephritis	Low	High	Low	Low	High

Table I.—Chemical changes found in various types of tetany.

In the treatment of chronic hypoparathyroidism one is concerned primarily with raising the lowered serum calcium and reducing the high serum phosphorus. For this procedure, two main therapeutic agents are available, dihydrotachysterol or AT-10 and vitamin D. Dihydrotachysterol is an irradiation product of ergosterol and was first introduced by Holtz[23] in 1933 and later studied intensively by Albright and his workers at the Massachusetts General Hospital[24]. These agents act similar to but not identical with the parathyroid hormone as shown in Table II[28]. As can be seen, the main difference is in the degree of phosphorus excretion, AT-10 causing the greater excretion and thus acting in a manner more similar to the parathyroid hormone. While AT-10 is a more physiological preparation in the treatment of parathyroid deficiency, it is more expensive than vitamin D, so that for practical purposes a combined use of the two drugs has proven the therapy of choice, especially when one realizes that the management of these patients is usually a life-time procedure.

Once the diagnosis of hypoparathyroidism is made didhydrotachysterol should be administered in sufficient amounts to raise the serum calcium and pro-

	Calcium Absorption	Urinary Phosphorus Excretion
Vitamin D	++++	++
Dihydrotachysterol	++	+++
Parathyroid Hormone	+	++++

Table II.—Relative effect of vitamin D, Dihydrotachysterol, and parathyroid hormone on intestinal calcium absorption and urinary phosphorus excretion. (28)

duce small amounts of calcium in the urine as shown by the Sulkowitch reagent. The usual amount is 3 cc. daily, which may be reduced once the elevated serum calcium and lowered phosphorus levels are obtained. With this, 100,000 units of vitamin D are administered daily. When symptoms have been relieved and the serum calcium level raised, the amount of AT-10 is reduced and the patient is regulated on the lowest possible dose which maintains the serum calcium and phosphorus at normal levels. It should be emphasized that the regulation of a patient with chronic hypoparathyroidism is somewhat similar to that of a diabetic. If large amounts of calcium appear in the urine as demonstrated by the Sulkowitch reagent, then the dosage of AT-10 and vitamin D is reduced, and, again, if no calcium appears or if tetany recurs, the medications are increased.

The usual maintenance dose of AT-10 is 1 to 3 cc. weekly combined with 100,000 to 200,000 units of vitamin D daily although variations occur depending upon the degree of hypoparathyroidism. Some patients with a mild deficiency can be maintained on small doses of either AT-10 or vitamin D alone but each patient must be treated in an individual manner depending on his reaction to therapy. Patients can easily be taught to test their urine with the Sulkowitch reagent daily so that within limits they can adjust their own medications. Periodic examinations of serum calcium and phosphorus levels every several months should supplement the Sulkowitch urine test, and the patient should be kept under constant observation for any necessary dosage regulation. The maintenance of these patients on large doses of vitamin D alone is not recommended because of the tendency to phosphate retention, and while the use of AT-10 alone, as discussed previously, is often desirable, it too frequently becomes prohibitive financially so that the balanced combination of the two drugs is most practical. The danger of over-dosage of either vitamin D or AT-10 is the production of hypercalcemia with metastatic calcification and renal damage, while mild under-dosage with hypocalcemia and latent tetany, if unobserved for any period of time, may result in the production of irreversible ectodermal changes.

Therapy with parathyroid hormone has been attempted both by transplantation of parathyroid tissue and by the subcutaneous or intramuscular administration of parathyroid hormone. Transplantation is rarely successful although some excellent results have been reported[25]. Injection therapy is seldom used because of the expense, the local irritation, the necessity of repeated injections, and because of the tendency to develop a refractory state. Cantarow[26] doubts that the lack of response is due to a true refractory or immune state but rather to the maintenance of a high phosphorus diet and the simultaneous administration of vitamin D. He does feel, however, that the objections to the prolonged use of parathyroid hormone are that it must be given parenterally and that spontaneous activity of remaining parathyroid tissue may be suppressed or inhibited.

The dietary phosphorus intake is restricted and thus milk, in spite of its high calcium content, should be eliminated because of the large amount of phosphorus it contains (0.93 gram in one quart). Additional calcium should be given orally and one can administer the gluconate, 4 grams, or the chloride or lactate, 2 grams, four times daily. In prescribing calcium it should be remembered that the various calcium salts differ in their calcium content. The chloride contains 36 per cent, the lactate 18 per cent, and the gluconate only 9 per cent of calcium, and usually a total of 2 grams of calcium itself should be administered daily. Calcium chloride, because of its tendency to produce a mild acidosis and help alleviate tetany, has been a favorite prescription. However, Albright[27] has observed some renal disorder with the prolonged use of this drug and feels that it should be used with some caution over any prolonged period of time. As an emergency procedure in the control of acute tetany it may be necessary to administer 10 cc. of calcium gluconate intraveneously but the effects last only one to two hours, often must be repeated, and should be supplemented by oral calcium.

In addition, one may administer aluminum hydroxide after meals to decrease the phosphate absorption. It has further been shown that the thyroid hormone may increase the serum calcium level in hypoparathyroidism so that tolerated doses of this substance can be given. However, the treatment of chronic parathyroid deficiency is so prolonged that the fewer and more uncomplicated measures that the physician prescribes the more comfortable and normal the patient's life will become.

XUM

Lenticular opacities may develop very insidiously with only moderately low calcium levels and in the absence of any manifest symptoms. It is thus advisable for these patients to have periodic eye examinations with the slit lamp at least yearly for the detection of early cataracts.

The treatment of chronic hypoparathyroidism is an extremely long procedure and medication must necessarily extend over years. Improvement may occur but recovery is very unusual. A complete understanding of these facts between the patient and his physician will often ensue better cooperation and more satisfactory therapeutic results.

The following cases illustrate some of these clinical symptoms and methods of therapy:

Case I (LGH 31,332). V. W., a 33 year old white housewife, was first admitted on December 29, 1948, for the removal of a cataract from the right eye.

In October, 1941, the patient had had a partial thyroidectomy in another institution, which was followed by a similar operation in March, 1942. The patient had a stormy second postoperative course, developed pneumonia, and remembered few details of her condition. She developed definite tetany with contraction of the hands and feet, numbness of the face, and was treated with intravenous and oral calcium with only temporary relief.

During the several months following the operation the patient lost most of her hair and fingernails, six teeth fell out, and she had an almost constant tetany unless relieved by intravenous calcium several times weekly. She continued to take calcium chloride by mouth and large amounts of milk. The patient's hair and nails gradually returned to normal and her tetanic episodes became milder. However, through the years, she still persisted with an almost constant sense of drawing of her hands. At least weekly injections of intravenous calcium remained necessary, and the patient related that in spite of treatment, an exacerbation of her symptoms would occur at the menstrual period.

On one occasion the patient was advised that it would not be necessary to continue oral calcium. Within a few days after stopping medication, she experienced severe generalized contractions necessitating multiple intravenous calcium injections and followed later by again losing some of her hair.

Six years prior to admission, or two years following the onset of her symptoms, the patient noticed a gradual, increasingly severe diminution of vision which was so diminished at the time of admission that she could do little more than distinguish moving objects.

The physical examination on admission revealed advanced bilateral cataracts. Several false teeth were present and a well-healed thyroidectomy scar was evident. Chvostek's sign was strongly positive and there was an almost constant contracture of the hands. The remainder of the examination was normal.

On admission the serum calcium level was 8.4 mgs. per 100 cc., and the serum phosphorus was 7.3 mgs. The Sulkowitch reagent persistently revealed an excessive amount of calcium in the urine. The Q-T interval in the electrocardiogram was 0.50 sec. (normal for age and rate, 0.40 sec.).

Because of the almost constant tetany, intravenous calcium gluconate was administered once on 12/31/48 and three times on 1/1/49. On 12/31/48 therapy with AT-10 was initiated with 2½ cc. b.i.d. for two days and then reduced to 2½ cc. daily. By 1/2/49 the patient was completely relieved of her symptoms of tetany. A low phosphorus diet was given and calcium chloride administered by mouth. The Sulkowitch reagent continued to show large amounts of urinary calcium. On 1/8/49 the serum calcium was 8 mgs. and the phosphorus 7.8 mgs., in spite of the fact that the patient was free of symptoms. A successful cataract extraction had been performed on 12/31/48, and the patient was discharged from the hospital on a low phosphorus diet, oral calcium chloride, and AT-10, 1 cc. three times a week, to be followed as an outpatient.

On 1/25/49 the serum calcium was 8.6 mgs., and the phosphorus 5 mgs., although the urine still showed large quantities of calcium. The patient had been completely relieved of tetany for the longest period in the preceding eight years.

On 2/21/49 the serum calcium and phosphorus levels were 8.9 mgs. and 5.0 mgs. The electrocardiogram showed a reduction of the Q-T interval from 0.50 to 0.44 sec. (Fig. 1). AT-10 was decreased to 1 cc. twice weekly, but one month later the patient complained of considerable cramping in her hands, the first she had noted since beginning treatment, and the serum calcium was reported as 7.7 mgs. with the phosphorus 5.6 mgs. AT-10 was increased to 1

cc. every other day with complete alleviation of her symptoms within a week.

In spite of moderately low calcium levels, the urine continued to reveal excessive amounts of calcium. The patient had been on calcium chloride orally for eight years. In accord with the observation of Albright[25], an effort was made to change oral

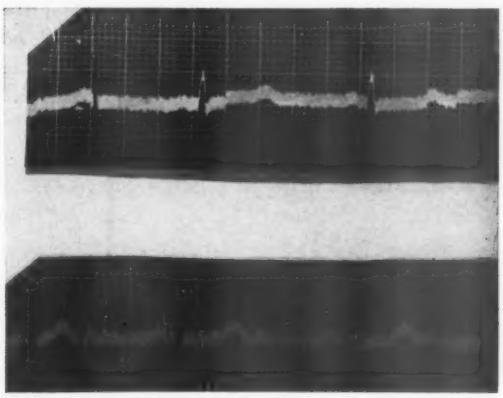


Figure I.—Lead I of electrocardiograms in Case I (V.W.) showing the prolongation of the Q-T interval with hypocalcemia (12/31/48) and return to normal with therapy (1/25/49).

calcium to calcium lactate and calcium gluconate. However, each time the patient attempted to do without calcium chloride, tetany returned. The addition of vitamin D, 50,000 units three times a week, thyroid extract, one grain daily, and aluminum hydroxide gel three times daily had no additional effect.

On 10/1/49 the calcium level was 9 mgs., and the phosphorus 3.4 mgs., so that the dosage of AT-10 was again reduced. Although no tetany occurred (except with menses), on her visit of June, 1950, the calcium level had fallen to 8.5 mgs., and the phosphorus had risen to 5.9 mgs., so that AT-10 was again increased to 1 cc. three times weekly and vitamin D increased gradually to 200,000 units daily. On this regime the calcium rose and the phosphorus fell, the last report in March, 1951, showing the calcium level to be 8.9 mgs. and the phosphorus 4.9 mgs. with a normal amount of calcium in the urine. The patient's course can be followed graphically in Chart I.

At the present time the patient is completely free of symptoms, including the time of her menses, she pursues a normal life and is active in housework and social affairs. Her sight has been considerably restored by the operation but she has elected to forego removal of the remaining cataract.

This patient illustrates the multiple ectodermal changes that may result with chronic parathyroid deficiency. Severe bilateral cataracts developed within two years and finally necessitated operative removal. Atrophic changes occurred in the nails and on two occasions during periods of prolonged tetany the patient lost her hair. This patient also exhibited the typical exacerbation of tetanic symptoms during the menstrual period.

Of extreme interest is the persistent hypercalcuria in spite of a relatively low serum calcium level. Albright has commented on a questionable renal disorder characterized by hypercalcuria and a low serum calcium level occurring with long continued calcium chloride administration and an associated pyelonephritis. The urine was cultured in this patient but was sterile. In spite of giving as large an amount as 160 to 180 grains of calcium lactate or calcium gluconate daily, the patient was unable to omit calcium chloride without subsequent tetany.

Case II (LGH 40,473). M. C., a 34 year old white housewife was admitted to the hospital March 22, 1950, because of severe contractions of the hands and laryngeal spasm.

On August 8, 1947, the patient had had a subtotal thyroidectomy with the removal of a toxic adenoma. Immediately following operation, the patient noticed numbness, tingling, and drawing of her hands, which symptoms were relieved by the occasional intravenous administration of calcium gluconate. The serum calcium level was reported as 11 mgs. per 100 cc., but the determination was not repeated. This condition persisted for approximately six months necessitating weekly or bi-weekly injections of calcium, but after this the patient became free of any tetanic episodes. She had noticed no visual disturbance.

In September, 1948, the patient became pregnant and throughout her term was given calcium diphosphate and advised to increase her milk intake. She noticed no tetany and in June, 1949, delivered a normal full term infant. The patient breast fed her baby and took no additional medication but she continued to ingest large quantities of milk.

In February, 1950, approximately eight months after the initiation of lactation, the patient for the first time in two years noticed a return of numbness and tingling of her hands. The severity of this condition varied, but over the next few weeks gradually

XUM

increased. During the week before admission she had several severe spells of muscular contraction accompanied by a drawing and tightness in her throat with some respiratory difficulty. She received several injections of calcium gluconate intravenously with only temporary benefit and because her symptoms persisted she was admitted to the hospital.

The outstanding physical signs were a well-healed thyroidectomy scar, intermittent contractions of the hands and fingers, and markedly positive Chvostek and Trousseau signs. Eye examination by an opthalmologist with a slit lamp revealed several small opacities lying in the lens cortex of each eye.

The serum calcium level was reported as 6.3 mgs. per 100 cc. and the serum phosphorus as 7.8 mgs. The alkaline phosphatase was normal and the urine had an abnormally small amount of calcium present.

The patient was placed on 3 cc. of AT-10 daily with calcium lactate, 30 grains four times daily, accompanied by a low phosphorus diet and 50,000 units of vitamin D every other day. Intravenous calcium was necessary for the first three days only. On March 30, 1950, the serum calcium was reported as 6.9 mgs. and the phosphorus 6.9 mgs., and there was still an abnormally low amount of calcium in the urine. The patient had no symptoms and was discharged from the hospital on 1 cc. of AT-10 daily, oral calcium, 50,000 units of vitamin D daily, and a low phosphorus diet.

On April 24, 1950, one month later, the patient reported she had had an episode of tetany requiring intravenous calcium. The serum calcium was 6.9 mgs. and the phosphorus 6.57 mgs., so that the dosage of AT-10 was increased to 3 cc. daily. Two months later the calcium had increased to 8.5 mgs., although the phosphorus was still elevated at 6.7 mgs. The patient had experienced no further tetany.

After three months on this dosage the calcium level was 8.8 mgs. and the phosphorus 5.6 mgs. Trousseau's sign was negative and the Chvostek only slightly positive. The Sulkowitch reagent revealed a normal amount of calcium in the urine and clinically the patient had remained free of symptoms. The dosage of AT-10 was accordingly reduced to 1 cc. daily and the vitamin D raised to 100,000 units daily.

In spite of increasing the amount of vitamin D to 200,000 units daily, one month later the blood calcium level fell to 7.8 mgs., and the phosphorus remained slightly elevated at 5.7 mgs. On April 4,

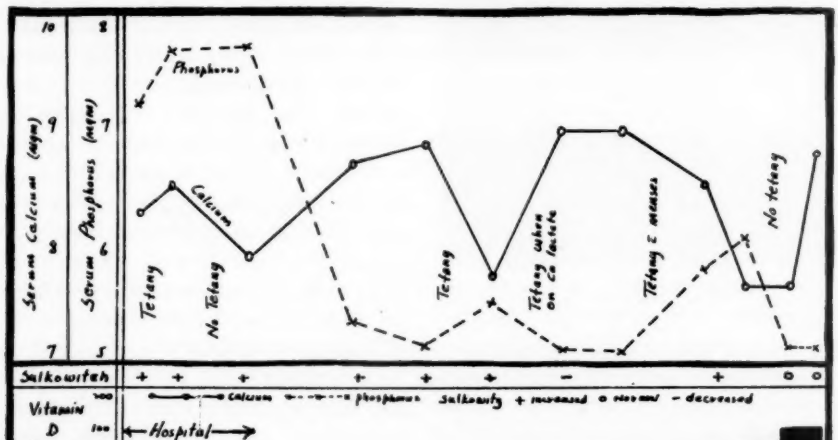


Chart I.—Case I (V.W.) Graphic outline of therapy.

1950, the vitamin D was increased to 250,000—300,000 units daily, and she was retained on 1 cc. of AT-10 three times weekly with supplementary calcium and a low phosphorus diet. Over the next several months the calcium levels rose and the phosphorus decreased, so that in October, 1951, six months later, the calcium was recorded as 9.5 mgs., the phosphorus 5.5 mgs., and there was a normal amount of calcium in the urine. The patient has remained free of symptoms for over a year. She does her own housework, enters into social activities, and leads an essentially normal life.

This patient illustrates the interesting effect of pregnancy and lactation on latent tetany. Undoubtedly, hypoparathyroidism with latent tetany had been present for several years. Pregnancy does not produce an excessive drain on the body calcium supplies, but lactation, particularly during the later months, causes a severe calcium depletion. The increased ingestion of milk during pregnancy and lactation with its high phosphorus content further enhanced the patient's difficulties. This patient's latent tetany characteristically became manifest during the eight months of lactation.

The insidious onset of cataracts with hypocalcemia is also demonstrated by this case. The patient had noticed no visual disturbance but slit lamp examination revealed definite early lenticular opacities. If the hypocalcemia had been permitted to continue, severe irreversible lenticular damage may have resulted. When one realizes that these opacities may begin or progress even with the patient under treatment should the serum calcium remain at subnormal but latent levels, the value of periodic slit lamp ophthalmological examinations as a supplementary guide in therapy is all too evident.

The graphic record of the patient's therapeutic course (Chart II) reveals her need for relatively large amounts of dihydrotachysterol when she was taking only 50,000 units of vitamin D daily. The patient required as much as 3 cc. of AT-10 daily for almost five months to raise the calcium level to 9 mgs. When AT-10 was reduced, the calcium fell but later could be elevated by increasing the dosage of vitamin D. The patient's last calcium and phosphorus levels were more elevated and repeated observations will be necessary to arrive at the optimum dosage, which again illustrates, as in each of these cases, the necessity of continued blood and urine studies and individual therapeutic regulation.

Case III (LGH 43,822). E. E., a 30 year old white female was first admitted to the hospital on August 24, 1950, because of stiffness of her hands and face, nervousness, and convulsions.

The patient's history was extremely long and complicated. In April, 1943, she had had a subtotal thyroidectomy in another city which was immediately followed with stiffness of the hands and face and with convulsions. The patient was discharged but because of the persistence of her symptoms she was readmitted on two occasions, treated with intravenous and oral calcium, and with parathyroid hormone. No serum calcium levels were available, and the diagnoses were recorded as "hysteria" and "psychoneurosis."

During the next several years the patient continued to have tetanic episodes as well as convulsions. She visited a number of medical institutions and was placed on various regimes of calcium, vitamin D, AT-10, and at one time had had a parathyroid transplant which was unsuccessful. The patient had considerable social difficulties, had obtained a divorce, and periodically had been habituated to seconal, chloral hydrate, and paraldehyde. On one occasion, she had been committed to the State Colony for Epilepsy. The patient moved from place to place, attempted to obtain paraldehyde or seconal from various physicians, and often was given intravenous calcium at numerous outpatient departments. She was usually without funds to procure her medications and remained in an almost constant state of tetany with many convulsive episodes.

In 1948 the patient had an intensive medical examination at a well recognized medical school hospital. Her symptoms were unchanged. Physically, the patient was recorded as being very nervous and hyperirritable. Both Trousseau's phenomenon and Chvostek's sign were positive. The serum calcium was recorded as 5.9 mgs., and the phosphorus as 4.3 mgs., and the diagnosis of hypoparathyroidism was established. The patient was controlled adequately on a regime of 4 cc. of AT-10 daily, supplemented with calcium lactate and a low phosphorus diet. While under observation, the patient frequently became excitable and hyperventilated with the production of carpopedal spasm which was apparently unrelated to her serum calcium level. The patient also

XUM

had several convulsions which also were likewise unrelated to the serum calcium level. Dilantin was considered but was not felt advisable because at least a part of the patient's symptoms seemed hysterical. All of this made a clinical evaluation very difficult and besides the diagnosis of hypoparathyroidism it was felt that the patient had a complicating severe mixed psychoneurosis.

In the two years following this hospitalization, the patient's symptoms remained unchanged. When she received adequate medication, she would remain free

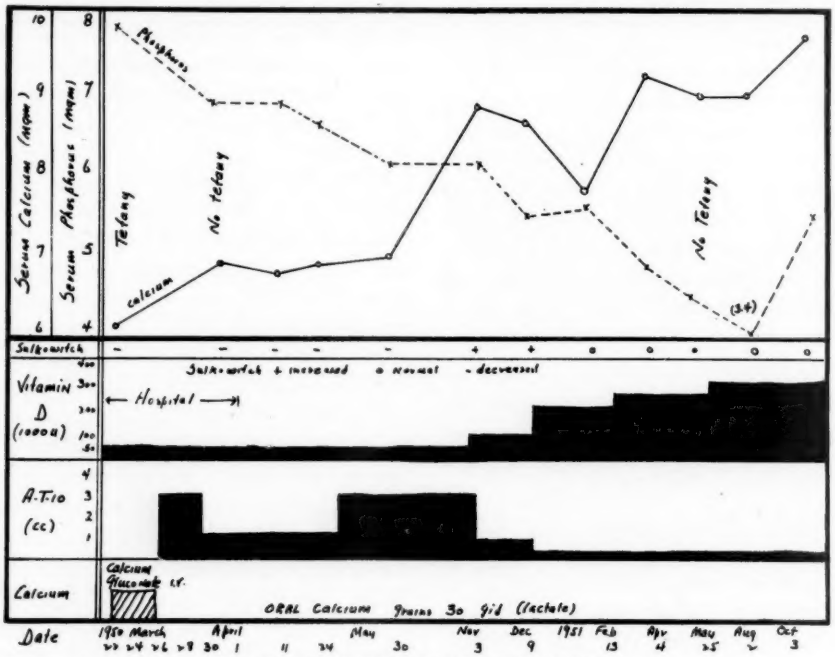


Chart II.—Case II (M.C.) Graphic outline of therapy.

of symptoms but too often, either because of finances or because of bouts of drug addiction, therapy would cease and inevitably tetany and convulsions would recur. In the few months before admission, the patient had taken large amounts of paraldehyde and seconal. Specific medications aside from frequent intravenous injections of calcium had been neglected, and when the patient presented herself in the Emergency Department requesting an intravenous injection of calcium late one evening, she was admitted for further observation.

The physical examination revealed an extremely nervous individual with several healed superficial scars on the forehead. A thyroidectomy scar was present and both Chvostek's and Trousseau's signs were strongly positive. Slit lamp examination revealed very minute early lenticular opacities.

The serum calcium was reported as 6.9 mgs., the serum phosphorus 6.94 mgs., and the Sulkowitch reagent revealed a decrease in urinary calcium. The Q-T interval in the electrocardiogram was normal, and the X-ray of the skull failed to show calcification of the basal ganglia.

The patient was given intravenous calcium three times daily for two days as well as 3 cc. of AT-10 daily, oral calcium, 50,000 units of vitamin D, and a low phosphorus diet. Within 24 hours her symptoms subsided, intravenous calcium was discontinued, and AT-10 was reduced to 2 cc. daily. On August 31, 1950, seven days after admission, the serum calcium was 11.7 mgs. and the phosphorus 6.29 mgs., the Sulkowitch reaction showed normal amounts of calcium in the urine, and AT-10 was reduced to 1 cc. daily.

On several occasions the patient had convulsions or episodes of tetany with demonstrable Chvostek's and Trousseau's signs, although the serum calcium level at the time was within normal limits and the relief as well as eliminating the Trousseau's

phenomenon with a few minutes. The patient was extremely nervous and breathing rapidly so that the symptoms of tetany were felt to be the result of hyperventilation.

On September 11, 1950, the serum calcium was 10.5 mgs. and the phosphorus 4.8 mgs. The patient had been placed on 1½ grains of Dilantin twice daily and she was discharged from the hospital on 1 cc. of AT-10 every other day supplemented with 50,000 units of vitamin D daily, oral calcium, and diet. One month later, although the patient returned to 9 mgs. with the phosphorus at 4.8 mgs. On 2/17/51 the calcium was 9 mgs. and the phosphorus 5.7 mgs., and she was placed on 1 cc. of AT-10 daily with 200,000 units of vitamin D.

For over six months the patient went without Dilantin. Her nervous condition improved and she had no further convulsions. The patient persisted with considerable emotional difficulty. In the past she had frequently been stabilized with all too frequent relapses, but persistent therapy may result in at least partial rehabilitation.

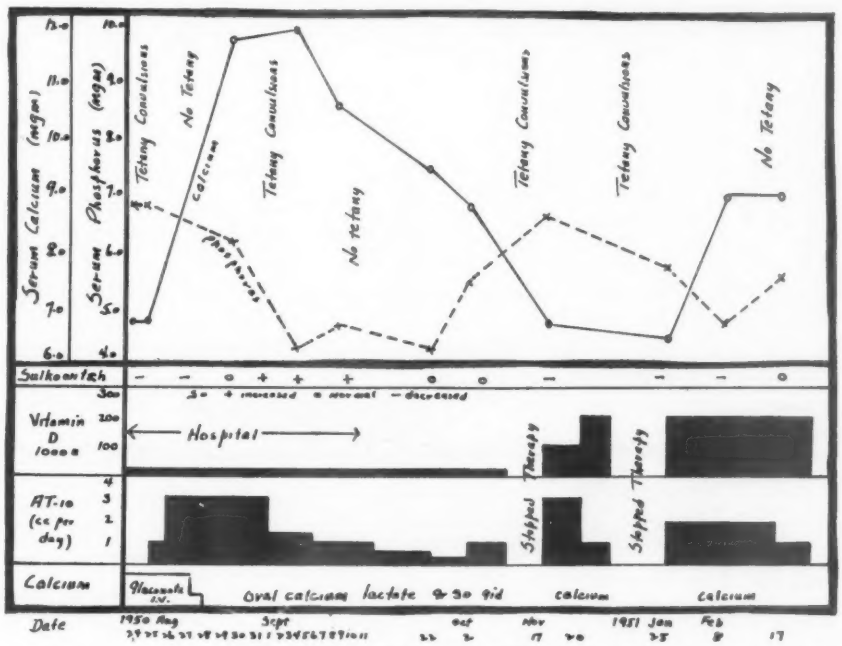


Chart III.—Case III (E.E.) Graphic outline of therapy.

had no symptoms, the calcium had fallen to 8.4 mgs. and the phosphorus was reported as 5.4 mgs., so that the dose of AT-10 was raised to 1 cc. daily.

Twice during the next four months the patient discontinued her medication with a resulting fall in serum calcium and a return of her symptoms. On one of these occasions while traveling on a bus she had a typical convulsion and was treated for epilepsy. Several days later—on 1/25/51—the serum calcium was 6.5 mgs. and the phosphorus 5.9 mgs. Therapy was reinstituted with 1 cc. of AT-10 daily supplemented with 200,000 units of vitamin D daily and oral calcium. In two weeks the patient was free of symptoms, and the calcium level had

Chart III summarizes the patient's therapeutic course.

This patient illustrates the all too frequent occurrence of convulsions associated with parathyroid deficiency. Calcification of the basal ganglia associated with convulsions in hypoparathyroidism has been mentioned, although this phenomenon was not present in this case. Repeated convulsions may lead to mental retardation in the young or mental decline in adults and to some degree this patient did show a decrease in mental activity. In individuals with idiopathic epilepsy it may be well to keep in mind the possibility of hypoparathyroidism, particularly

XUM

the idiopathic variety, where one is not aided diagnostically by an evident thyroidectomy scar.

Case IV (LGH 44,284). W. C., a 35 year old single white female was admitted to the hospital on 9/15/50 for the removal of a toxic diffuse goiter. Symptoms of hyperthyroidism had been present for several months and the patient had been prepared medically for operation. Physical examination on admission revealed a moderate degree of exophthalmus, a firm, diffuse enlargement of the thyroid gland, and a slight tremor of the hands. On 9/19/50 a subtotal thyroidectomy was performed without apparent operative difficulty.

Two days after the operation, on 9/21/50, the patient noticed drawing of the hands and face; and for the next several days she received repeated intravenous injections of calcium, 30 grains of calcium gluconate orally, and 5 drops of viosterol daily.

On 9/26/50 the patient demonstrated markedly positive Chvostek's and Trousseau's signs, the calcium level was 7.3 mgs. with the phosphorus 6.9 mgs., and the Sulkowitch reagent revealed a decrease in urinary calcium.

Therapy was initiated with 3 cc. of AT-10 and 50,000 units of vitamin D daily, supplemented with 8 grams of calcium lactate powder and a low phosphorus diet. On 9/30/50 the calcium was 8.7 mgs. but the phosphorus was still elevated to 6.25 mgs., so that AT-10 was increased to 4 cc. daily and aluminum hydroxide gel added. On 10/4/50 the patient was free of symptoms, Chvostek's and Trousseau's signs were negative, and the calcium was reported as 8.8 mgs. with the phosphorus 3.7 mgs. The patient was discharged on 2 cc. of AT-10 daily, 50,000 units of vitamin D, oral calcium, and diet.

Over the next four months the patient was followed with gradual reduction in the dosage of AT-10 and an increase in vitamin D. On 1/20/51 the serum calcium was 11.2 mgs., and the phosphorus 4.3 mgs. The patient had had no further tetany, and she was placed on 2 cc. of AT-10 weekly with 200,000 units of vitamin D daily as well as oral calcium and diet. One month later the calcium level had risen to 12 mgs., so that over the next several months the amounts of AT-10 and vitamin D were reduced. On August 4, 1951, the blood calcium was 11.1 mgs. and the phosphorus 3.5 mgs., so that all medication was reduced. Two months later when the calcium had fallen to 9.5 mgs., oral calcium was reinstituted, with no other medication.

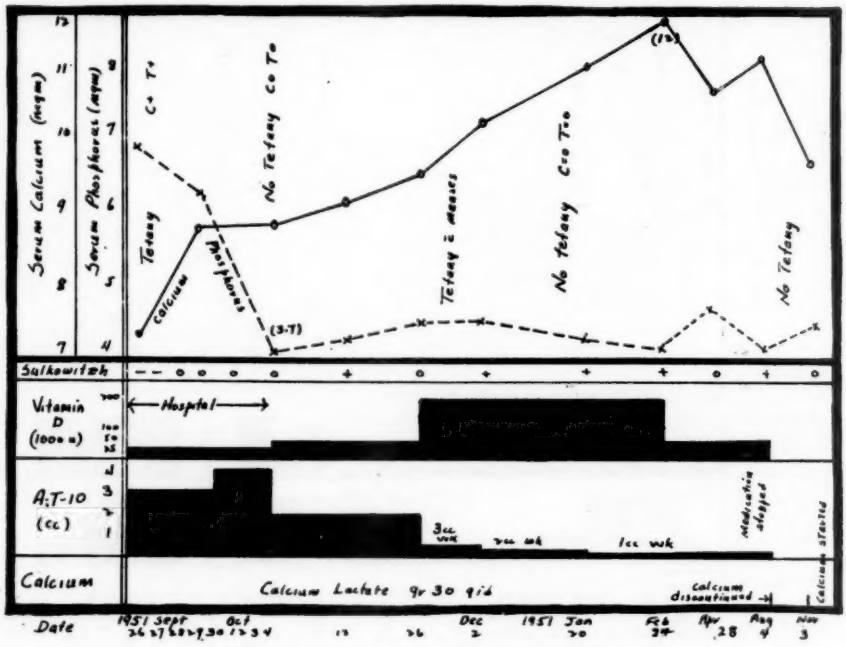


Chart IV.—Case IV (W.C.) Graphic outline of therapy.

The patient has remained free of symptoms, and her examinations have been essentially normal. She leads an active life as a stenographer and pursues her regular business and social activities. Chart IV illustrates this patient's clinical and therapeutic course.

The acute onset and control of parathyroid tetany following thyroidectomy is illustrated by this case. While often tetany in such instances lasts only a short while, this instance proved relatively severe and has persisted for over a year. It may be wise to keep specific medication to a minimum in these early cases to forego the possible danger of suppressing any remaining active parathyroid tissue. It is hoped that possibly this patient will regain a good amount of parathyroid function, but a considerable period of observation will be necessary. This paient does not appear to have as severe parathyroid deficiency as the preceding cases, but the fall of blood calcium while on no therapy during the latter part of her course, over a year after operation, makes one feel that there must be some definite parathyroid deficiency with latent hypoparathyroidism.

SUMMARY

1. The etiology, clinical symptoms, differential diagnosis, and treatment of chronic hypoparathyroidism have been discussed.
2. The variod and often bizarre clinical picture of chronic hypoparathyroidism has been emphasized.
3. Dihydrotachysterol or AT-10 is physiologically the drug of choice but often for financial reasons vitamin D is used and a combination of the two is usually found adequate.
4. AT-10 and vitamin D should be supplemented with oral calcium and a low phosphorus diet. While thyroid extract and aluminum hydroxide gel may be of additional value, it is strongly emphasized that the patient's regime be made as simple as possible, the malady usually being a life-long condition.
5. Four case histories illustrating some of the more unusual clinical symptoms have been presented.

REFERENCES

1. Boothby, W. M., Haines, S. F., and Pemberton, J. deJ.: Post-operative Parathyroid Insufficiency. Am. J. M. Sc. **181**:81-96, January, 1931.
2. Kroger, W. P.: Hypoparathyroidism. Calif. Med. **65**:3-5, July, 1946.
3. Sutphin, A., Albright, F., and McCune, D. J.: Five Cases (Three in Siblings) of Idiopathic Hypoparathyroidism Associated with Moniliasis. J. Clin. Endocrinol. **3**:625-634, December, 1943.
4. Leonard, M. F.: Chronic Idiopathic Hypoparathyroidism with Superimposed Addison's Disease in a Child. J. Clin. Endocrinol. **6**:493-506, July, 1946.
5. Friderichsen, C.: Tetany in a Suckling with Latent Osteitis Fibrosa in the Mother. Lancet. **1**:85-86, January, 1939.
6. Albright, F., Burnett, C. H., Smith, P. H., and Parson, W.: Pseudohypoparathyroidism, an Example of "Sebright-Bantom Syndrone," Report of Three Cases. Endocrinol. **30**:922-932, June, 1937.
7. Emerson, K., Jr., Walsh, F. B., and Howard, J. E.: Idiopathic Hypoparathyroidism, a Report of Two Cases. Ann. Int. Med. **14**:1256-1270, January, 1941.
8. Albright, F., and Reiferstein, E. C., Jr.: The Parathyroid Glands and Metabolic Bone Disease, pp. 40, The Williams and Wilkins Co., Baltimore, 1948.
9. Albright, F., and Strock, M. S.: The Association of a Calcification of Dentine with Hypoparathyroidism in Rats and the Cure of Same with Parathormone with Some Correlated Observations in Man. J. Clin. Invest. **17**:305-315, May, 1938.
10. Keating, F. R., Jr.: The Normal and Pathologic Physiology of the Parathyroid Glands, Collected Papers of the Mayo Clinic and Mayo Foundation. **37**, pp. 282, W. B. Saunders Co., Philadelphia, 1946.
11. Camp, J. D.: Symmetrical Calcification of the Cerebral Basal Ganglia, Its Roentgenological Significance in the Diagnosis of Parathyroid Insufficiency. Radiology. **49**: No. 5, pp. 568-577, November, 1947.
12. Haines, S. F.: Parathyroid Insufficiency. Med. Clinics of N. A., pp. 1019-1026, July, 1940.
13. Fritzsche, R.: (Quoted by Eaton *et al.* [14]) Eine familiar auftretende Form von Oligophrenie mit rontgenologisch in den Stammganglien. Schweiz. Arch. f. Neurol. u. Psychiat. **35**:1-29, 1935.
14. Eaton, L. M., Camp, J. D., and Love, J. G.: Symmetric Cerebral Calcification Particularly of the Finer Cerebral Blood Vessels. Arch. Neurol. and Psychiat. **41**:921-942, May, 1939.
15. Resch, C. A.: Dental Findings in Hypoparathyroidism in Relation to Patient and Progeny. Cleveland Clinic Quart. **14**: No. 3, pp. 147-152, July, 1947.
16. Lyle, J. D.: Cataract and Tetany Produced by Parathyroid Deficiency during Pregnancy Lactation and Menstruation. Am. J. Ophthal. **32**: No. 9, pp. 1183-1188, September, 1949.
17. Albright, F., and Reifenstein, E. C., Jr.: The Parathyroid Glands and Metabolic Bone Disease. pp. 2, The Williams and Wilkins Co., Baltimore, 1948.
18. Levy, H. A.: Unusual Clinical Manifestations of Chronic Hypoparathyroidism. Med. Clinics of N. A. **31**: No. 1, pp. 243-53, 1947.
19. (a) Boothby, W. M.: A Case of Parathyroid Insufficiency. Proc. Staff Mayo Clinic. **7**:361-363, 1932.

XUM

(b) Cantor, M. M., and Scott, J. W.: Chronic Idiopathic Hypoparathyroidism. Canad. M. S. **47**:551-552, December, 1942.

20. Barr, D. P., MacBryde, C. M., and Saunders, T. E.: Tetany with Increased Intracranial Pressure and Papilledema—Results from Treatment with Dihydrotachysterol. Trans. Assoc. Am. Phys. **53**:227-232, 1938.
21. Barney, J. D., and Sulkowitch, H. W.: Progress in the Management of Urinary Calculi. J. Urol. **37**: 746-762, 1937.
22. Kellogg, F., and Kerr, W. J.: Electrocardiographic Changes in Hyperparathyroidism. Am. Heart J. 346-351, September, 1936.
23. Holtz, F.: (Quoted by Albright and Reifenstein [8]) Die Behandlung der Postoperatioen Tetanie. Arch. f. Klin. Chir. **177**:32, 1933.
24. Albright, F., and Reifenstein, E. C., Jr.: The Parathyroid Glands and Metabolic Bone Disease. pp. 36, The Williams and Wilkins Co., Baltimore, 1948.
25. Ball, R. G., Green, C. H., Camp, J. D., and Roundtree, L. G.: J.A.M.A. **98**:954, 1932.
26. Cantarow, A.: Chap. V, Mineral Metabolism, Diseases of Metabolism, edited by G. A. Duncan, pp. 231, W. B. Saunders Co., Philadelphia, 1947.
27. Albright, F., and Reifenstein, E. C., Jr.: The Parathyroid Glands and Metabolic Bone Disease, pp. 39, The Williams and Wilkins Co., Baltimore, 1948.
28. Albright, F., and Reifenstein, E. C., Jr.: The Parathyroid Glands and Metabolic Bone Disease, pp. 134, The Williams and Wilkins Co., Baltimore, 1948.

New Method of Treating Bell's Palsy.

A new, rapid way of treating Bell's palsy, by local anesthetization with procaine hydrochloride of a small group of sympathetic nerve cells in the neck, was reported in the September 6 J.A.M.A.

Bell's palsy, a usually innocuous but psychologically distressing disease, is the distortion of the face as a result of paralysis of the muscles on one side of the face. The cause of most cases of the disease is unknown, and treatment has been generally unsuccessful. Although recovery is usually spontaneous, it is long delayed in many instances, causing psychological and economical difficulties.

According to the author of the article, Dr. Daniel M. Swan, Quincy, Mass., the drug is believed to cause the blood vessels to dilate, improving circulation and easing the paralysis. The success of this new method of therapy suggests that the blood vessels play an important role in the causation of the disease, confirming a previously believed theory, he added. Dr. Swan is physician-in-chief of the department of medicine, Quincy City Hospital.

Dr. Swan reported on two cases of Bell's palsy treated by this new method. Both patients recovered about 80 per cent of the use of the affected face muscles after several such treatments, and complete recovery was noted within two months. This return of facial function, he said, was more rapid "than could have been expected in the natural course of the disease, even with the application of the best previously known therapy."

MESENTERIC ADENITIS COMPLICATED BY MULTIPLE SEGMENTAL INTUSSUSCEPTION OF THE SMALL INTESTINE

W. LOWNDES PEPLE, JR., M.D.,*
and
FLEMING W. GILL, M.D.,†
Richmond, Virginia.

A case in which both mesenteric adenitis and intussusception occurred spontaneously is presented.

B.M.H., a four year old female, was seen on July 3, 1951, in the home because of abdominal cramps and fever. The mother stated that on July second the child woke up complaining of abdominal pain which was localized above the navel and intermittent in character. Several times during the day the child came in from play, crying with abdominal pain of several minutes duration, after which she felt perfectly well and went out to play again. There was no nausea or vomiting. The appetite was good and daily bowel movements were described as normal in appearance.

She had several attacks of abdominal pain during the night of July second.

Past history: The child has been well since birth and has had frequent periodic routine examinations by her family physician in another city. She was fitted with glasses for strabismus.

In April, 1951, just before moving to this city, she was examined by her doctor because of rectal itching and a diagnosis of pinworms was made and treatment given. After the course of therapy the itching stopped. No pertinent physical findings had been noted by the mother except that an umbilical hernia, present since birth, seemed to be larger and more tender since the onset of the present illness.

Examination on July third was essentially negative except for a temperature of 101, enlarged red tonsils and an inflamed throat. There was little cervical lymphadenopathy present. The abdomen was negative except for a small reducible umbilical hernia. Aureomycin 50 mgs., every four hours, and hot gargles were prescribed.

The next day, July 4th, the temperature in the morning was normal and the child felt well enough to go out-of-doors to play. However, she again came home several times screaming with abdominal pain. When the paroxysm had subsided, she seemed normal to the mother. She ate a light lunch which she retained.

In the evening, the paroxysms of pain became more frequent and she was brought to St. Luke's Hospital for observation at 7:00 P.M. Examination showed a well-developed and well-nourished four year old girl, complaining of pain in her abdomen. The attacks were periodic, lasting twenty to thirty seconds. The child preferred to lie on her side with knees drawn up. The temperature was 101.4°, Pulse —130; Respiration —24.

EENT: Internal strabismus, right eye. Mucous membranes dry. Throat inflamed. Tonsils enlarged and inflamed. No exudate. A few small cervical lymph nodes palpable. Neck not stiff.

Chest: Clear to percussion and ausculation.

Heart: Normal. Rate rapid.

Abdomen: Tender in all quadrants, especially the lower right, with moderate rigidity of the muscles. No masses palpable. Auscultation revealed hyperperistalsis. A small reducible umbilical hernia was present.

Rectal: No mass felt. No blood noted.

W.B.C. 10,000; 76% polys., 24% lymphocytes.

Urine negative except for rare red cells and crystals.

At 9:00 P.M. an exploratory laparotomy was done through a small right rectus muscle-splitting incision. The peritoneal cavity was entered without difficulty. The cecum was delivered into the wound, revealing a normal appendix. The cecum was replaced and the terminal ileum examined for a possible Meckel's diverticulum. It was noted that many enlarged lymph nodes, the largest being the size of a lima bean, were in the mensentery of the small intestine. About eighteen inches from the ileocecal valve, the small intestine was found telescoped into itself for approximately two inches. This intussusception was reduced by gentle traction and milking, revealing a pale area of edema and thickening on the antime-

*Surgical Staff, McGuire Clinic and St. Luke's Hospital
†Visiting Staff, St. Luke's Hospital, Richmond, Va.

XUM

sentric wall of the bowel. The presence of a worm in the lumen of the small intestine was disproved by holding apart the lateral walls of the bowel and palpating in an anterior-posterior plane. Further exploration of the intestine revealed a similar area of intussusception approximately six inches above the first, and still a third six inches proximal to the latter. The bowel was traced to the ligament of Treitz. After replacing the small intestine, the appendix was removed; the stump was inverted with a purse-string suture of silk. A purse-string of silk was also placed around the neck of the umbilical hernia sac, closing it off. The abdomen was closed in layers.

On returning to her room the patient was given 300 c.c. of 5% glucose in Ringer's solution subcutaneously; 300,000 units of crysticillin were given intramuscularly daily for four days. Her post-operative course was uneventful—the temperature dropping to normal on the second day. She was discharged from the hospital on the seventh post-operative day. A careful search for pinworms or other parasites or ova in the stools was negative. Follow-up studies showed the child to be entirely well and there has been no recurrence of abdominal pain.

DISCUSSION

Intussusception is the telescoping of one portion of the small intestine or colon into a more distal segment of the enteric tube. It is most frequently seen in infants, the peak occurring from the third to the eleventh month. In an extremely large percentage of cases (90-95%) the etiological agent is unknown[1]. In the most common type of intussusception the ileum telescopes into the colon. Jejuno-ileal, ileo-ileal, and colic-colic types may also occur, but are a much rarer finding.

The symptom of severe recurrent colicky pain in the abdomen causes the infant or child to draw up his legs and is generally accompanied by vomiting. The passage of bloody stools occurs in a large percentage of cases, usually twelve hours after the onset of the initial symptom. Palpation of a mass, described as sausage-shaped in configuration, and the presence of blood on the finger on rectal examination are important clinical signs.

Acute non-tuberculous mesenteric lymphadenitis which is frequently seen in children mimics appendicitis. Postlethwaith and Campbell[2] reviewed the records of 1,604 patients at the Duke Hospital who underwent appendectomy for signs and symptoms of an acute condition within the abdomen. One patient in six in this series had mesenteric lymphadenitis. In this case, the findings of mesenteric lymphadenitis and intussusception of the small intestine lead us to think that the same etiological agent which had affected the mesenteric lymph nodes had also caused swelling of the lymphoid tissue of Peyer's patches. These swollen areas then acted as a foreign body, causing the bowel to telescope on itself in three separate and distinct locations. It would have been of great academic interest to open, inspect and biopsy these areas of the bowel. Such procedure was not justified as resection was not indicated by the condition of the bowel, nor would it have been in the best interest of the patient.

In 1951 O'Sullivan and Child, in a paper entitled "Ileocecal Intussusception Caused by Lymphoid Hyperplasia", reviewed the literature and presented two cases. The first case was that of an eleven month old female who was explored for an ileocecal-type of intussusception. After reduction it was noted that the distal ileum disclosed a 2x3 centimeter mass which was thought at first to be a foreign body. It could not be dislodged. However, on opening the bowel a swollen hemorrhagic Peyer's patch was found. Because of the size of the mass, 5 centimeters of the ileum were resected and ileocecostomy performed. Gross and microscopic studies supported the clinical impression and showed a sharply demarcated Peyer's patch.

The second case was that of a 4½ year old male who four days prior to admission had a cough with evidence of an upper respiratory infection. Operation, performed because of marked right lower quadrant tenderness, revealed an ileocecal intussusception. After reduction, a tumor mass involving the entire wall of the terminal ileum was found. The bowel was resected with end to side ileocecostomy. The pathology report of the specimen showed numerous small white submucosal nodules, 2 mm. in diameter and thickening of the entire bowel wall. Microscopically the glandular mucosa of the specimen was normal. Within the submucosa, many hyperplastic lymphoid follicles were found which had grown to such an extent that the overlying mucosa was stretched to a single layer of cuboidal epithelium.

Both of these cases of O'Sullivan and Child made uneventful recoveries.

It is our belief that our case exhibited, to a lesser degree, pathology similar to that of the cases quoted above. The finding of three distinct and separate areas of intussusception in the small intestine makes this a unique case.

BIBLIOGRAPHY

1. Ladd, William E., and Gross, Robert E.: Abdominal Surgery of Infancy and Childhood, W. B. Saunders Company, P. 105.
2. Postlethwait, R. W., and Campbell, F. H.: Acute Mesenteric Lymphadenitis. Archives of Surgery, 59, 1949, P. 92-100.
3. O'Sullivan, W. D., and Child, C. C.: Ileocecal Intussusception Caused by Lymphoid Hyperplasia. J. Pediatrics, 38, March, 1951, P. 320-324.

Medical Mediation Committees Now Functioning in All States.

A major goal in the medical care program for the United States has been reached with the establishment of mediation committees in each of the 48 states, the District of Columbia and Hawaii, according to a statement issued by the Council on Medical Service of the American Medical Association.

The establishment of these committees is the result of a four-year campaign for the creation of such patient-physician relations bodies. The committees investigate complaints concerning the professional conduct and ethical deportment of individual physicians and attempt amicable adjustments.

The council also reported that voluntary health coverage continues to gain both in quality and quantity. It was estimated that by 1953 approximately 90,000,000 persons will be covered by some form of protection against the costs of illness, accident and hospitalization.

In addition, the council reported, community health councils have increased from 48 in 1943 to 1,190 in 1951, and have shown substantial gains during the last year; 12 indigent medical care studies have been made under the direction of the council, and plans are being formulated for nine others; placement services for physicians have been established in 37 states, and approximately 600 communities now have emergency medical call systems.

Warn Against Prolonged Use of Estrogen Creams.

Continuous absorption by older women of small amounts of estrogens over a long period of time, such as could be obtained through the use of estrogen creams, may affect the female organs, in the opinions of Drs. Minnie B. Goldberg and Franklin I. Harris, San Francisco. The doctors are associated with the divisions of medicine and surgery, Mount Zion Hospital.

"If estrogen creams continue to be sold over the counter without prescriptions, it should be mandatory that the label bear a warning advising intermittent and not continuous use, as well as a statement recommending a limitation of quantity to be used," the doctors wrote in the October 25 J.A.M.A.

They reported on a case of a 40-year-old woman who used estrogen creams and lotions on her face, neck, arms and legs for many months. The natural absorption of estrogen through the skin resulted in an excessive thickening of the lining of the womb and heavy vaginal bleeding, the doctors stated.

XUM

FATAL APLASTIC ANEMIA FOLLOWING CHLORAMPHENICOL (CHLOROMYCETIN ®)

JAMES G. WILLIS, M.D.,
CLAUDE A. NUNNALLY, M.D.,
LLOYD F. MOSS, M.D.,
and
PAUL J. NUTTER, M.D.,
Fredericksburg, Virginia

Blood dyscrasias have been reported due to a great number of drugs and chemicals, particularly those containing the benzene ring. It seems necessary to add Chloramphenicol to these. A total of eight cases of depression of the bone marrow following the use of Chloramphenicol have been reported[1,2]. Two of these have been fatal. To these our fatal case of aplastic anemia following Chloramphenicol is added.

CASE REPORT

Mr. M. G., a 53 year-old white male, was first admitted to the Mary Washington Hospital, 2/22/51, for the treatment of a urinary tract infection of about three weeks' duration. He had been treated in the office with control of pyuria with Chloramphenicol, but with recurrence as soon as the drug was stopped. An intravenous pyelogram, 2/5/51, was normal. Past history revealed that he had had a kidney stone removed three years ago; otherwise, his health had been good. He had an operative right lumbar scar, and an undescended left testis; otherwise, physical examination was negative. He was afebrile. Laboratory studies: Urinalysis microscopic, 20-25 W.B.C. per/h.p.f. cent.; albumin, trace; sugar, negative; urine culture for tubercle bacilli, negative. Blood: W.B.C., 5,400; hbg., 16.2 grams; diff. polymorphonuclears, 59%; lymphocytes, 41%. The blood Kahn was negative.

Cystoscopic examination showed generalized hyperemia and congestion of the bladder, especially at the base.

He was treated with Chloramphenicol, and discharged 2/26/51, continuing treatment after discharge.

SECOND ADMISSION, 7/16/51: Since the first admission the patient had been seen many times in the office, having been treated almost continuously with Chloramphenicol. Each time the drug was stopped pyuria returned. The physical examination was again negative except for the undescended left testis. Laboratory studies: Urinalysis, specific gravity, 1.014; albumin, negative; sugar, negative; microscopic, 2-3 W.B.C. per/h.p.f. cent. Blood, W.B.C., 9,950; hemoglobin, 15.8 grams; differential, polymorphonuclears, 76%; lymphocytes, 22%; monocytes, 2%.

The undescended left testis and cord was removed, hoping that a focus in the epididymis might relieve the recurrent pyuria. Convalescence was uneventful, and he was discharged 7/23/51.

THIRD ADMISSION, 8/15/51: Since the previous admission the patient had again had recurrence of pyuria, and had again been treated with Chloramphenicol. Physical examination was again negative. Laboratory examination: Urinalysis, specific gravity, 1.023; microscopic, innumerable white blood cells; 6-8 red blood cells; albumin, negative; sugar, negative. A gram stain showed many pus cells, but no organisms. The blood studies showed the white blood count to be 3,950, with the hemoglobin, 15.2 grams, with a differential count of 41% polymorphonuclears, and 59% lymphocytes. A notation was made that the lymphocytes appeared normal.

Intravenous pyelograms showed the left urinary tract normal; the right showed slight dilatation of the upper collecting system, and there was a partial block at the ureteropelvic junction which was thought possibly due to a stricture at the site of the previous nephrolithotomy. Cystoscopic examination of the bladder was not particularly remarkable. The patient was discharged 8/20/51.

FINAL ADMISSION, 11/5/51: Starting about ten days before this admission he noticed increasing fatigability, shortness of breath, and headaches with exertion. He had taken Chloramphenicol in doses ranging from 100 milligrams to 250 milligrams, four times a day, and occasionally 500 milligrams, four times a day almost continuously since January, 1951. From January, 1951, to April, 1951, he had taken

sulfonamides intermittently. In June and July he had taken a mandelic acid preparation (Elixir of Mandechlor ®) for approximately six weeks. Six weeks before the final admission he had taken Aureomycin, 500 milligrams, four times a day, for about ten days. Following this he resumed treatment with Chloramphenicol. Careful questioning revealed that he had taken no other drugs, headache powders, aspirin, or sleeping tablets. Physical examination revealed marked pallor, and generalized purpuric petechia of the skin and mucous membranes, but was, otherwise, not remarkable. The blood pressure was 130/90. Examination of the blood showed a white count of 1,700; hemoglobin, 5.8 grams; differential, 11% polymorphonuclears, including one juvenile form; 87% lymphocytes, and two monocytes. The blood smear showed the platelets to be greatly diminished in number. The urine was loaded with pus, but showed only 4-5 R.B.C. A trace of albumin was present; the sugar was negative; specific gravity, 1.016.

Bone marrow the day after admission showed no megakaryocytes or platelets, and there was marked hypoplasia of both the red cell and granulocytic series.

The patient's condition deteriorated steadily in spite of many blood transfusions, Penicillin, and Cortisone. Purpura and hemorrhages from the gastro-intestinal tract became increasingly more severe. The white blood count continued to run about 2,500 to 3,000 W.B.C. Another marrow examination showed very marked pancytopenia. On 11/21/51, he had a convulsion, followed by coma, stertorous breathing, and a blood pressure of 210/100, apparently due to a cerebral hemorrhage. The coma deepened, and he died 11/22/51. Permission for autopsy was refused.

DISCUSSION

While it is not absolutely certain that Chloramphenicol was the cause of the fatal aplastic anemia in our case, we think that the evidence is so strong that it should be so considered. In the fatal case of Rich *et al.*[1] Chloramphenicol had been given for twelve weeks before the onset of purpuric manifestations. In the case Wilson *et al.*[2] the drug had been given for twenty-eight weeks before the onset of symptoms. Our patient had taken Chlorampenicol intermittently, but fairly regularly, for ten months before there were definite symptoms, although three months before a blood count had shown only 3,950 white blood cells, with a differential count of 41% neutrophils, and 59% lymphocytes. Cognizance of the possibility of depression of the bone marrow by Chloramphenicol might have made us suspicious of this blood count, and might have prevented the fatal outcome in our case.

Of the six non-fatal cases of depression of the bone marrow, one was reported as early as two days after the first administration of the drug. Others were nine days, twelve days, eighteen days, nineteen days, and twenty-six weeks.

SUMMARY AND CONCLUSION

A fatal case of aplastic anemia following the prolonged administration of Chloramphenicol is reported, with a brief review of the literature. The medical profession should be cognizant of the possibility of depression of the bone marrow by Chloramphenicol (Chloromycetin ®), and periodic examination of the blood should be made when it is administered.

ADDENDUM

Since the preparation of this paper eleven additional cases of fatal aplastic anemia attributed to Chloramphenicol have been reported[3,4,5].

BIBLIOGRAPHY

1. Rich, Murray L., Ritterhoff, Robert J., and Hoffmann, Robert J.: A Fatal Case of Aplastic Anemia Following Chloramphenicol (Chloromycetin ®) Therapy, Ann. Int. Medicine **33**:1459 (Dec.) 1950.
2. Wilson, L. E., Harris, M. S., Henstell, H. H., Witherbee, O. O., and Kahn, J.: Aplastic Anemia Following Prolonged Use of Chloramphenicol (Chloromycetin ®), J.A.M.A. **149**:231-235 (May 17) 1952.
3. Claudon, D. B., and Holbrook, A. A.: Fatal Aplastic Anemia Associated with Chloramphenicol (Chloromycetin ®) Therapy, J.A.M.A. **149**:912-914 (July 5) 1952.
4. Smiley, R. K., Cartwright, G. E., and Wintrobe, M. M.: Fatal Aplastic Anemia Following Chloramphenicol (Chloromycetin ®) Administration, J.A.M.A. **149**:914-918 (July 5) 1952.
5. Sturgeon, P.: Fatal Aplastic Anemia in Children Following Chloramphenicol (Chloromycetin ®) Therapy, J.A.M.A. **149**:918-922 (July 5) 1952.

The Pratt Clinic.

XUM

OFFICE TREATMENT WITH SUBCOMA INSULIN AND TRAINING IN DIVERSION—
An Analysis of 105 Consecutive Cases*

JOHN TAYLOR RANSONE, M.D.,
Newport News, Virginia.

Report is being submitted of the results on 105 consecutive patients chosen for a brief course of subcoma insulin given in the office simultaneously with habit training in appropriate recreation and diversion. Attention is called to the usefulness of this procedure in anxiety states (tension states) and the resulting physical complaints and diseases.

The successful use of subcoma insulin for anxiety states in psychiatric hospitals is well established. Very satisfactory results were reported in 1949 by Gayle, Neale, and Cheek of Richmond[1], by Martin[2], and by Bedell[3]. Other similar reports were made by Kelly and Thompson in 1947[4] and by Carnat, *et al.*, in 1948[5]. These reports were all on hospitalized patients. Cohen reported in 1949 successful treatment of mental illness at home with small doses of insulin[6]. In May, 1951, Robert J. Van Amberg reported to the convention of the American Psychiatric Association his good results on 50 cases of anxiety states treated in his office with insulin subcoma[7].

Insulin has been found effective in the treatment of numerous physical disease entities, especially those known to involve general or local sympathetico-adrenal stimulation, some of which now are being treated by sympathectomy, vagotomy, or other operations. Recent reports of the successful use of insulin, either in small tonic doses or in subcoma doses, in the treatment of physical diseases include the following:

1. Thrombo-angiitis obliterans, reported by two groups[8,9] in 1949.

2. Chorea minor, reported by Mayerhofer, *et al.*,[10] in 1951.

3. Progressive muscular dystrophy in children, reported by Mayerhofer[11] in 1950 (early cases only).

4. Peptic ulcer. Carnat, in 1948, reporting on psychoneurosis treated with insulin given at subcoma levels, stated that eight cases also had peptic ulcer and, although not favored as to diet or special medication, improved clinically and radiologically on this insulin regimen[5]. Jones, in 1934, reported successfully treating peptic ulcer with much smaller doses of insulin[12]. Cathcart and Laidlaw are continuing this use of small doses of insulin for peptic ulcer as an auxiliary to psychotherapy[13].

5. Rheumatoid arthritis, reported in 1950 by Kersley *et al.*[14], and by Gordon and Weitzner[15]. The use of insulin with cortisone was reported by Henderson *et al.*[16], in 1951.

6. Psychosomatic disorders in general, using subshock levels, reported by Sadler and Rubin[17] in 1950.

7. Tuberculosis with anorexia, reported by Morgenstein and Dewing[18] in 1949. Insulin greatly ameliorated neurotic reactions and resulted in marked gain in weight.

8. The use of insulin in small tonic doses for malnutrition of sundry types including that of post-alcoholic state and especially that of anxiety reactions or tension states long has been used and is described in many textbooks[19,20,21].

During the past five years the writer has treated several hundred patients with insulin in relatively small or "tonic" doses in conjunction with practical psychotherapy including coaching in how to spend spare time. Results usually have been gratifying, not only in relief of anxiety and of nervous disorders, but especially in the relief of many and varied and often intolerable physical complaints. Doses and methods were highly variable. Insulin was given to some in the office with brief therapeutic interviews, while others received the insulin at home. There were no untoward occurrences and none are to be expected in patients who have been studied fully and who have been coached adequately as to frequent feedings, and who are not too neurotic to recognize hunger. All patients chosen for this treatment carried physical evidence of sympathetico-adrenal stimulation. Most of them were underweight. Nearly all benefited. In some cases of long duration it was found advisable to give the large doses of insulin necessary for subcoma, and these cases are included in the tabulation offered. Since tolerance

*Read before the Seaboard Medical Association of Virginia and North Carolina at its annual meeting at Virginia Beach, Va., December 6, 1951.

to insulin already had been established, effective levels of insulin subcoma could be obtained from the first.

Another extensive use the writer has made of insulin not tabulated as subcoma was as an aid to heavy feeding of alcoholics coming off a spree, to a total of 57 patients as of November 1, 1951. Most of these patients otherwise would have needed hospitalization. Many of these were threatened with delirium tremens. Heavy feeding with the aid of insulin was given during six to ten hour periods spent in the office, patients being kept all the while very busily playing cards or at other active diversion. In such starved cases, with glycogen depletion, safety demanded that the initial dose of insulin be very small, often as little as ten units although patient was to remain under the constant watch-care of a nurse. Two or three hours later, after patient was eating well, much more insulin was given. In many cases it was necessary to give intravenous glucose (10% in a liter of Ringer's solution). Usually the patient would eat within the six to ten hour period a loaf of bread together with other food. In many cases after one or two days of this treatment, patient resumed work, thus saving his job. Thirty-five of the more severe cases received in addition two or more subcoma treatments and these are included in the tabulation of subcoma offered. As their tolerance for insulin already had been established, effective levels of subcoma were readily obtained.

The selection of cases of all types to be given insulin with simultaneous training in diversion was based upon the following criteria:

1. Without the aid of subcoma insulin patient could not be depended upon to respond quickly to coaching in habit training and other forms of brief psychotherapy.

2. Careful psychiatric study for two or more hours indicated that patient probably would benefit from subcoma insulin with coaching in diversion. Sixty-five of the 105 cases had been advised to enter a psychiatric hospital or advised to take electric shock therapy but had refused. Rather than let them grow worse for lack of effective treatment they were given subcoma insulin. (Only 11 of these have since been admitted to a psychiatric hospital). Subcoma insulin was not refused unless prognosis appeared almost hopeless.

3. Careful examination and laboratory work indicated patient could safely take subcoma insulin on the technique used. All decisions were upon clinical judgment; there were no "rules".

In the tabulation below the term good result was confined to patients who made a definite industrial recovery, or, in the case of housewives, those who exhibited ability to carry appropriately their responsibilities as wives and mothers. The term fair result was used for all other patients with enough improvement to justify the treatment given. Most of these resumed employment.

As the tabulation shows, the average treatment was for 8.6 days. In most instances it was believed that more treatment was advisable. However, treatments were terminated early for various reasons: In many cases because the patient considered he had recovered; in many cases because the patient's greatly improved appearance resulted in his finding immediate employment; in some cases because of lack of finances; in some cases because the patient was too neurotic to tolerate the relatively transient and mild discomfort of hypoglycemia. Some schizophrenic patients, while consciousness was dulled by hypoglycemia, became unmanageable; and some became negativistic as regards taking food to terminate the hypoglycemia. (Such schizophrenia cases are not suitable for office treatment with subcoma insulin). The above several reasons for brevity of treatment also caused treatments to be interrupted and irregular. In some cases after patient resumed employment, a few more days of treatment were given on Saturdays or other days on which patient was not working.

The techniques used in giving subcoma insulin is somewhat similar to that described by the workers listed in the bibliography but with certain innovations. The patient receives a single injection of insulin each day. The daily average dose for the 105 cases was 109 units of regular insulin. The first dose is usually 25 to 30 units in young physically sound persons known to be eating adequate amounts of carbohydrates, and in such persons the insulin often is increased that much each day until subcoma effects are obtained. The patient reports without his breakfast and prior to 8:30 A.M. After blood pressure and temperatures have been taken by the nurse, the physician carefully examines patient and calculates the dose of insulin capable of producing coma within three hours and injects it intramuscular-

XUM

TABULATION OF 105 CONSECUTIVE CASES CHOSEN FOR AND GIVEN A VERY BRIEF COURSE OF SUBCOMA INSULIN SIMULTANEOUSLY WITH HABIT TRAINING IN APPROPRIATE RECREATION AND DIVERSION:

	Average number days of subcoma including days of building up to an effective dosage	Number of Cases	Results Good	Fair	Poor
1. Anxiety state including reactive depression	7.	32	29	2	1
2. Anxiety state complicated with chronic alcoholism	6.1	20	17	2	1
3. Other more involved and more fixed neuroses	11.2	17	1	10	6
4. Same as No. 3 complicated with chronic alcoholism	7.3	11	1	6	4
5. Schizoid personality with chronic alcoholism	7.7	4	—	1	3
6. Schizophrenia	13.6	14	6	6	2
7. Active manic depressive psychosis, depressed type	10.1	4	2	—	2
8. Involutional melancholia	7.	1	—	—	1
9. Mental deficiency with schizoid reactions	8.5	2	—	2	—
Total	8.6	105	56	29	20

All patients were treated daily in the doctor's office for a six or seven hour period.
All cases treated with two or more days of subcoma insulin are included in this tabulation.

ly. Coma is prevented practically always by the constant watch-care of the graduate nurse. However, there is kept always ready a sterilized 50 cc. syringe for injecting glucose and also a stomach tube.

Hypoglycemia is terminated promptly in any of the following events:

1. When patient becomes too stuporous to subtract a digit from 100.

2. When a threatened convulsion is suggested by hyper-ventilation or by muscle twitching.

3. When there is suggestive evidence of poor heart action.

The innovations which the writer has presumed to make in the technique of subcoma insulin are as follows:

1. Its use in the doctor's office to patients living at home. This permits efforts at treating the whole family.

2. Use of two ounces of corn syrup, such as crystal white Karo, with water and lemon juice to make 10 ounces of a palatable lemonade in initiating the termination of hypoglycemia instead of the large amounts of heavy concentration of sugar described by others. This innovation avoids the nausea so often associated with subcoma insulin. Patients then eat, usually quite ravenously, a fat-free sandwich made to their taste every 10 or 20 minutes to a total of four or more before 3 P.M. They are urged to continue frequent feedings until bedtime and are further urged to be quick to telephone if they become concerned.

3. Patients are not allowed water prior to termination of hypoglycemia, and thereafter only enough fluids to quench thirst. This appears to prevent the rather high incidence of seizures reported by some workers.

4. Patients are not routinely required to sign a waiver of responsibility because after careful examination and selection of cases and with careful watch-care, there is no serious hazard; and because such timidity would interfere markedly with treatment by tending to increase anxiety. (See untoward occurrences below).

The office procedure is safe if adequate precautions are taken. As given in the writer's office, precautions include:

(1) Requiring patient to remain six hours or more after insulin is given.

(2) The doctor holding himself accessible by not being subject to emergency calls

(3) Keeping the patient under constant alert watch-care of an experienced graduate nurse.
(4) Using the services of a qualified technician for all indicated work.
(5) Watch-care for carotid sinus manifestations, especially in diabetics[22].

5. Patients are kept out of bed and busily playing cards or other table games throughout the six or seven hours spent in the doctor's office except for about two hours of frank hypoglycemia. The conventional rather futile efforts to have patients sleep while in bed are avoided and they are encouraged to carry on a lively conversation. They often have an uproarously good time and "wisecrack" about their personality short-comings. Husbands and wives are encouraged to come in order that he or she and the patient may learn to play games together. All this constitutes a school or course in recreation and diversion, something sorely and vitally needed by all these patients. Each day before leaving each patient is given a period of individual psychotherapy and is instructed zealously to spend the rest of the time until late bedtime at play or at work of any type which will take his undivided attention, if possible in the company of others.

Among the 105 cases treated with subcoma insulin there were the following untoward occurrences:

1. While apparently recovering from his psychosis, the case of involutional melancholia (without prodromal or previous gastric symptoms) had a perforation of stomach. Following prompt surgery he recovered physically; but during hospitalization his psychosis returned, and he was placed in a state hospital. A search of the literature revealed no mention of such perforation during subcoma nor even during coma insulin, and it appears proper to consider this merely a deplorable coincident.

2. Six days after coming off an alcoholic debauch and while taking subcoma insulin, a patient had hematemesis requiring hospitalization. Diagnostic studies did not reveal any possible source of the bleeding. As cirrhosis was present, it should be presumed that bleeding was from varicosities of the esophagus. In any case, it is well known that hematemesis is of frequent occurrence in alcoholics. It is not listed by writers as a complication of subcoma insulin.

3. Six patients being treated, following alcoholic debauches, developed seizures. These admitted having previously had seizures following other alcoholic debauches (when insulin had not been used). Such post-alcoholic seizures are not very unusual. In addition, there were seizures in two cases with active schizophrenia, in one case of conversion hysteria and epilepsy, and in one case of chronic anxiety state. Although such seizures are probably as beneficial as if induced by electric shock therapy or by metrazol, the practice of limiting fluids was initiated and no further trouble of such nature was experienced.

In searching the literature the writer could find no mention of fatalities occurring as a result of subcoma insulin in sane nor in borderline persons. However, in 1948 Sullivan[23] reported a fatality under subcoma insulin being administered twice daily with rather heavy sedation, to a case of schizophrenia in acute exacerbation, overactive, hallucinating, and negativistic. Malamud[24] more fully reported this fatality, and added another in 1948 in a case of acute psychosis and delirium tremens of nine days duration who received an initial dose of 50 units of regular insulin, administered as a tonic and not for subcoma. In the writer's long experience such cases nearly always are feeding problems, prone to carbohydrate depletion, and unsuited for such vigorous treatment with insulin. Certainly such procedures would not be considered for office treatment.

Results of treatment with brief subcoma insulin simultaneously with training in diversion seem surprisingly good when consideration is given to the following facts:

1. The types of cases treated, practically unselected as to diagnosis and as regards unfavorable prognosis.

2. The small number of treatments per patient (average 8.6).

3. Irregularities in treatments necessarily incident to extramural patients, attendance being subject to whims of patients and of relatives.

The poorest results were in the group designated "Other more involved and more fixed neuroses" which, with the 11 alcoholics, consisted of 28 chronic and uncooperative patients, most of whom exhibited much evidence of conversion hysteria. These are the patients who make a physician very unhappy. They never have been considered suitable for treatment with subcoma insulin; but there was a keen desire on the part of the writer to learn whether the training in recreation and diversion would produce

XUM

substantial improvement. This group included all cases with more complicated neurotic patterns of behavior, not the simple psychologically and physiologically explainable ones included under "anxiety state, including reactive depression". Their symptoms often included anesthesia or paresis of a limb or side, or other stigmata. Symptoms usually were due to inhibitions rather than to over-stimulation and resulting fatigue. All 28 in this group showed an inappropriate degree of self-pity. Their reactions and reasonings, their patterns of feeling, thinking, and acting were of those many rather unpsychological types which tempt many workers to postulate and zealously seek some "complex" hidden in the hypothetical "unconscious". Patients in this group exhibited little evidence of a sincere desire to get well. Such patients are prone to stop treatment of any type long before satisfactory results can be expected, and this occurred with the writer's group. In such cases improvement of 18 out of 28 seems more than might be expected from so few days of treatment usually irregularly taken. Thus it appears evident that training in recreation and diversion did make a substantial difference.

The 14 cases grouped as schizophrenia included five in fair remission. Nine were very definitely psychotic but hospitalization was not accepted. They were given subcoma insulin in preference to allowing them to remain untreated. Only two of these subsequently entered a psychiatric hospital. In view of the brevity of treatment (average 13.6 days), the results tabulated seem surprisingly good. Again, it appears evident that training in recreation and diversion made a substantial difference.

Of the four cases of definite manic depressive psychosis, depressed type, one made a rather spectacular recovery on ten days treatment. One patient, who had fractured her ankle immediately following electric shock therapy, showed a tendency to relapse. This was prevented by eight days of subcoma with training in diversion. The remaining two patients repeatedly stopped coming as soon as they noted some improvement. In the end, they were admitted to a state hospital.

The one case of involutional melancholia (hospitalized) is discussed above.

All those in the groups of alcoholics who were given brief subcoma insulin following a day or two of heavy feeding (35 cases) had findings routinely considered indications for hospital care. When first seen, most of them had visual hallucinations. Three were hearing voices and three had delusions. Of these 35 alcoholics only four subsequently entered a psychiatric hospital. Nearly all of the group resumed employment and are now believed to be working. In view of the poor condition of these patients and the brevity (average 6.7 days of subcoma) and irregularity of their treatment, results appear good, probably in large part because of training in diversion.

The group of 52 cases designated "anxiety state", including 10 cases with reactive depression and 20 with alcoholism, were selected for subcoma from several times this number of patients with anxiety state and resulting physical complaints. They were selected for subcoma insulin because they were believed to be not readily curable by the routine psychotherapy and habit training which was described in a former communcation.[25] That is to say, they were not the milder and more transient cases of anxiety state often designated "tension state" which usually will get well anyway if not advised to take a rest cure nor sent to work full of sedatives, nor otherwise mishandled by the doctor, chiropractor, psychologist, or other type of practitioner; and if the patient is not forced to a habit of introspection by reading some book or article expounding some swivel chair doctrine or system of cure.

This group of 52 cases placed together under the title "anxiety state" included all those cases in which the major finding was habitual alarm reaction (sympathetico-adrenal stimulation) with physical and nervous symptoms caused by over stimulation or by the resulting fatigue. All apparently had a keen desire to get well, hence were cooperative, and were relatively free of the more involved neurotic patterns of behavior. They varied in type from a frank reactive depression with suicidal tendencies to acute tension state with such complaints as tension headaches, muscle aches (especially of neck and shoulders), cardiac palpitation with extrasystoles, and "nervous indigestion". Such cases are diagnosed too frequently as having some organic disease whereas the emotional nature of the condition would be obvious if appropriate diagnostic studies were made.

All ten cases with reactive depression placed in the group designated "anxiety state" appeared proper candidates for prompt admission to a hospital for

psychiatric care because of their suicidal tendencies. These patients refused hospitalization, and rather than force them to go untreated, subcoma insulin was given. All these ten acutely ill people responded promptly and made industrial recoveries.

Cases of anxiety state as a whole responded promptly to subcoma insulin, and such patients are exceedingly gratifying to treat. Many stopped treatment after only a few days as they felt no further need of treatment.

It must be emphasized that subcoma insulin does not permanently cure. It does produce natural and desirable types of sedative and tonic effects and enables patients to build up new and more normal habits of behavior, such as result in a fuller more interesting and satisfying life. Like electric shock therapy it does help patients to quickly make necessary changes in their habits of feeling, thinking, and acting; and with adequate coaching enables them to develop quickly the full and interesting life of a cheerful wholesome person. Once the complete change is made, the patients are so thrilled and so appreciative of their abilities to live a full and rich life that they usually can be depended upon to retain the new habits and remain well.

It seems to be accepted that insulin is an antagonist for sympathetico-adrenal stimulation. In the writer's experience, when judiciously used, it is our most dependable drug, not only for satisfactory relief of tension states, but also for the numerous resulting physical complaints involving over-stimulation and resulting fatigue which affect practically every organ and system of the body.

The nervous and physical complaints which, in the writer's 22 years of psychiatric experience, are found to be produced solely by sympathetico-adrenal stimulation (alarm reaction) and which in his experience respond to treatments of subcoma insulin include the following complaints:

1. The usual "nervousness" by which the patient means tenseness, irritability, temper tantrums, restlessness, and sometimes tremulousness.

2. Inability to concentrate due to the ever present "brain storms".

3. Anxiety, a feeling of insecurity, apprehension, the expectation of future difficulties as judged by the past. This apprehension may be referable to physical illness or complaints, personality shortcomings, overt sins and crimes, family quarrels and maladjustments. This apprehension also may be referable to inadequate earning capacity, oftenest resulting from habitual tense, discouraged, or friendless appearance.

4. Depression, crying spells, suicidal thoughts and attempts.

5. Insomnia, terrifying dreams and nightmares.

6. Most headaches including migraine, tension headaches, and other forms of nervous headaches.

7. Soreness of muscles, most typically of neck, trunk, and shoulders.

8. The usual forms of cardiac palpitation, extrasystoles, paroxysmal tachycardia, and the milder precordial pains. The alarm reaction produces either arterial hypotension or hypertension according to the flexibility of the arterioles with possible resulting physical complaints in either case.

9. The usual forms of anorexia with resulting loss of weight which becomes a new concern.

10. The usual forms of nutritional anemia, usually the result of emotional anorexia. Anemia increases other complaints and produces new complaints.

11. The usual forms of fainting or faintiness in children and in people of the "race horse" build. Such fainting appears to result primarily from relative or functional hypoglycemia, secondary to tension states and to functional anorexia.

12. The usual forms of indigestion including bloating, belching, regurgitation, vomiting, and the epigastric discomforts often expressed as pain. (Duodenal ulcer is believed by many to be only an end stage of "nervous indigestion" produced by hostility or other long protracted "brain storms").

13. The usual forms of constipation and attacks of diarrhea.

14. The usual forms of impotence and sterility, nearly always secondary to distraction with sources of anxiety and often increased by the resulting nutritional anemia.

15. The usual forms of menstrual disturbances, especially dysmenorrhea and delayed or missed menstruation.

16. The usual forms of pseudo-renal colic, incontinence, bedwetting, and many other urinary disturbances.

17. Periods of fatigue resulting from prolonged emotional stimulation. The presenting complaint is often quick fatigue, listlessness, or apathy. When these are the prominent complaints, the diagnosis is

XUM

prone to be neurasthenia, psychasthenia, neurocirculatory asthenia, or "nervous exhaustion".

In some patients there seems to be psychic inhibition of the amount of sympathetico-adrenal stimulation necessary to prevent allergic reactions and especially pseudo-allergy. These cases respond to insulin, possibly by its stimulating the production of adrenalin and cortisone. Many, if not all, neurological and physical diseases are influenced markedly by emotions. Especially is this true of epilepsy, as the writer brought out in a former report.[28]

It should be noted that the writer has listed as being of emotional origin the usual complaints of the majority of patients seeking medical advice. Rest with sedation seems to cure or help these patients only when the complaints are essentially transient and in wholesome, stable personalities. In a high per cent of patients, that is, those with neurotic tendencies, such rest and sedation, by increasing the time spent in preoccupation with the sources of anxiety, tend to develop and confirm more definite neurotic patterns of behavior. Histories of onset of depression almost invaribly include treatment with rest and sedation.

If a patient's complaints are the result of emotional stimulation and if there is not a prompt response to the treatment used, the excessive sympathetico-adrenal stimulation should be terminated promptly by the simplest effective measure. In the milder cases adequate ventilation and coaching may suffice. For quick and sure results many patients should be given insulin, preferably in vigorous subcoma doses, and preferably administered by those experienced with its use. For permanent results the patient must be coached adequately to live a full and interesting life and in this manner replace the time he otherwise would spend in painful ruminations of sundry types.

SUMMARY AND CONCLUSIONS

Subcoma insulin can be administered safely in the office if proper watch-care and precautions are used. Precautions must include thorough evaluation of the patient by examination, history, and all indicated laboratory work. Studies and evaluations must include any glycogen depletion and any existing impairment of liver, of kidneys, or of the cardiovascular system. The physician must be alert for carotid sinus disease, especially in diabetics. Patients disciplined to ignore hunger require much watch-care and coaching.

Insulin, whether used in subcoma or in small tonic doses, is a prompt specific for the numerous every day nervous and physical complaints caused by habitual sympathetico-adrenal stimulation (prolonged alarm reaction). The emotional source of such functional complaints should be recognized and treated promptly instead of temporizing with rest and sedation. When there is available no other prompt and effective treatment, insulin is indicated. During a period of improvement produced by insulin, the patient routinely should be coached and trained adequately to replace with interesting activities the time he has been spending in preoccupation with painful thoughts and he should be treated with other brief practical psychotherapeutic measures. Results should then be permanent. Prompt and frequent but judicious use of adequate insulin with practical psychotherapeutic efforts should eliminate many of our admissions to psychiatric hospitals, many of our surgical operations such as sympathectomies, and most of the prevalent illness and disability resulting from prolonged emotional turmoil.

BIBLIOGRAPHY

1. Gayle, R. Finley, Jr., Neal, Claude L., and Cheek, Thomas S.: Subshock Insulin Therapy in Anxiety States. Va. Med. Monthly. **76**:483-486, September, 1949.
2. Martin, George J.: Sedative Insulin Treatment of Anxiety in Anxiety Neurosis. J. Nerv. and Mental Dis. **109**:347-359, April, 1949.
3. Bedell, S. G.: Insulin Subshock in Treatment of Anxiety States. Southern Med. J. **42**:130, February, 1949.
4. Kelly, Douglas, and Thompson, L. G.: Insulin As an Adjunct in the Treatment of Anxiety States. North Carolina Med. J., December 1947, pp. 762.
5. Carnat, M., Edwards, F. J., and Fletcher, Elizabeth: The Treatment of Certain Psychoneuroses by Modified Insulin Therapy (197 cases). Canad. Med. Asso. J. **58**:22-25, January, 1948.
6. Cohen, Newman: Treatment of Mental Illness at Home by Small Doses of Insulin. New Eng. J. Med. **240**:669-676, April, 1949.
7. Van Amberg, Robert J.: The Use of Insulin Subcoma Therapy in Treatment of Anxiety States. Amer. Psychiat. Asso. Convention, May, 1951.
8. Mazanek, Henryk: Thromboangiitis Obliterans Treated by Hypoglycemia. Lancet. **2**:935-937. November 19, 1949.
9. Volta, A. Dalla: Insulin in Treatment of Arteritis of Legs. J.A.M.A. **142**:1109, April 1950, abstract

from Archivio di Patalogia e Clinica Medica. **27**:283-342, 1949.

10. Mayerhofer, E., Stransky, E., Felix, N. S., and Tezner, O.: Insulin Therapy of Chorea Minor, J.A.M.A **146**:1538, August, 1951, abstract from Annales Paediatrici, Basel. **176**:297-360, May, 1951.
11. Mayerhofer, E.: Insulin Therapy in Progressive Muscular Dystrophy, J.A.M.A. **144**:1037, Nov., 1950, abstract from Annales Paediatrici, Basel. **174**:326-336, May, 1950.
12. Jones, Clement R.: Insulin in the Treatment of Peptic Ulcer. Amer. J. Digestive Dis. and Nutrition. April, 1934.
13. Cathcart, J. P. S., and Laidlaw, Robert: Personal communication, February 20, 1951, Relative to Use of Insulin for Duodenal Ulcer. Dept. of Veterans Affairs, Ottawa, Canada.
14. Kersley, G. D., Mandel, L., Jeffrey, M. R., Desmaris, M. H. L., and Bene, E.: Insulin and E.C.T. in Treatment of Rheumatoid Arthritis: Report on Pilot Series of Cases. Brit. Med. J. **2**:855-860, October, 1950.
15. Gordon, G. B., and Weitzner, Herbert A.: Rheumatoid Arthritis and Insulin Therapy. J.A.M.A. **145**: pp. 842, March 17, 1951.
16. Henderson, E., Gray, J. W., Weinberg, M., Merrick, E. Z., and Seneca. H.: Cortisone Plus Insulin in the Palliative Treatment of Rheumatoid Arthritis: a Preliminary Study. J. Clin. Endocrinol. **11**:2, pp. 119-133, February, 1951.
17. Sadler, Harrison, and Rubin, Sidney: Observations in Treatment of Patients with Psychosomatic Disorders Using Subshock Insulin in a Group Setting. Amer. J. Psychiat. **107**:350-356, November, 1950.
18. Morgenstein, Philip, and Dewing, Stephen B.: Insulin in the Treatment of Tuberculosis Patients with Anorexia—a Modified Technic. Am. Rev. Tuberc. **60**:25-31, July, 1949.
19. Beckman, Harry: Treatment in General Practice, W. B. Saunders Co., Philadelphia, 1934. pp. 397-399.
20. Albrecht, F. Kenneth: Modern Management in Clinical Medicine, The Williams and Wilkins Co., 1946. pp. 690-691.
21. Cecil, Russell L.: A Textbook of Medicine, W. B. Saunders Co., Philadelphia, 1948. p. 629.
22. Rudnikoff, Isadore: Insulin and the Carotid Sinus. Internal. Med. **34**:1382-1395, June, 1951.
23. Sullivan, D. J.: Insulin Subshock Treatment of Psychoses and Psychoneuroses. Arch. Neurol. and Psychiat. **59**:184-214, February, 1948.
24. Malamud, N.: Fatalities Resulting from Treatment with Subshock Doses of Insulin. Amer. J. Psychiat. **105**:373-376, November, 1948.
25. Ransone, J. T.: Pre-Occupation with Painful Memories as Basis for Neurosis and Physical Illness. Va. Med. Monthly. **76**:79-82, February, 1949.
26. Sargant, W., and Slater, E.: Treatment by Insulin in Subshock Doses. J. Nerv. and Ment. Dis. **105**:493, May, 1947.
27. Tomlinson, Paul J.: Subcoma Insulin Therapy: Analysis of 300 Cases. Psychiat. Quart. **22**:609-620, October, 1948.
28. Ransone, John Taylor: Treatment of Epilepsy—a Study of Eleven Consecutive Cases. Va. Med. Monthly. **78**:303-309, June, 1951.

2904 West Avenue.

The P-R Corner

Psychologically, there's a jagged break in the ideal doctor-patient relationship when a patient with a minor ailment is dispatched with a prescription after one visit to the doctor. "How can the doctor tell whether the medicine helped me or not?" wonders the patient.

Many doctors solve this problem by handing such patients self-addressed postcards and asking them to report on their condition in a day or two. It's a friendly "let me hear from you" gesture.

XUM

SOME DOCTORS OF THE GADSDEN PURCHASE WHEN ARIZONA WAS A TERRITORY*

CLAUDE C. COLEMAN, M.D.,
Richmond, Virginia

For the benefit of those who, perhaps, have not been so interested in Arizona as I have been, it may be well to throw some light on the title of this paper and to mention briefly certain historical and geographical facts concerning Arizona.

It will be recalled that the Mexican War ended in 1848, at which time a vast amount of territory was ceded to the United States. The territory obtained by the Treaty of Guadalupe Hidalgo reached from the Rio Grande, on the southern border of Texas, northwest and took in most of New Mexico, Arizona, Colorado, Wyoming, California, Nevada and Utah. However, there was a strip in the southern part of Arizona lying east and west below the Gila river, which was not included in the Guadalupe Treaty. It was purchased from Mexico for ten million dollars in 1853. More could have been bought, but it was thought at the time that the price of $10,000,000 was too high. This strip extended almost to Yuma which was then in California, on the Colorado river, and comprised 45,500 square miles. The reason for buying this strip of land was to secure a right-of-way for a railroad through Southern Arizona which has no high mountains. This railroad was later built and is now known as the Southern Pacific. The negotiations for this strip were carried out for the United States by James Gadsden, then ambassador to Mexico (1853), and it has been called the Gadsden Purchase, or more often, The Strip. Most of the Indian fighting in Arizona went on in this area. It was inhabited by the fiercest of tribes, the Apaches and the Navajos. The Navajos at first were friendly, but later became belligerent and troublesome. This southern strip included the counties in which are located Tucson, Globe, Miami, Douglas and Bisbee. The latter two places at present, are of great importance as mining towns. Tombstone is also located in this strip. The southern part of this territory bordered on Mexico and an international line was run between the two countries.

In the purchase of this area, the United States was obligated to protect Northern Mexico from the Indians. That is, they were supposed to keep the Indians north of the border. This was an impossible undertaking. The Mexicans for centuries had hated the Apaches who, in turn, actually despised the Mexicans. Moreover, the Apaches seemed to have no love for any nation or tribe. The inhabitants of the southern border of this strip, therefore, lived on the fiercest frontier of the United States. Indian warfare became almost continuous and was of such ferocity as to exceed in brutality anything we have ever known in this country. It is not understood why warfare with the Americans became the chief occupation of the Indians. It is probable, from informaion available, that the Indians were first inclined to be friendly and keep their treaties, but these were so frequently violated by the Mexicans and the Americans that the Indians decided to outdo them on this score and they later made treaties only to ignore them. The Mexicans apparently were responsible for a great deal of the animosity that existed.

It is probable that the Mexicans were the first to employ scalping on this continent, although it was described by Herodotus as having been used by the Scythians. It is known to have been practiced by the Anglo-Saxons and the Franks as early as 879 A.D., and it is still practiced in Africa. It has been so commonly associated with the American Indians, however, that many people assume that it had its origin with them. It is true that some of the Indian tribes practiced scalping a great deal and became expert at it. In some tribes other types of terminal brutality were preferred, such as crushing the head of the victim with a rock. This was particularly popular with the Apaches. At times large rewards were paid for Indian scalps, so that scalping became something of a commercial enterprise. It seems that the Indians had a trick of cutting several circular areas of scalp from one head, thereby making it appear that they had several scalps when, actually, they had taken them all from the same individual. Removal of the scalp was supposed, by some tribes, to have various effects on the spirit of the victim, such as banishment from the "Happy Hunting

*Read before the Richmond Academy of Medicine by Dr. Howard C. Naffziger, Professor of Surgery, University of California, for Dr. C. C. Coleman, April 10, 1951.

Grounds"; "the eternal slavery of the victim to the victor", or even, "the complete annihilation of the spirit".

The first American settlement in Arizona that still exists was at Tucson, located about sixty miles from the Mexican border. It was for many years known as "The Old Pueblo" and was a city walled as a protection against Indians. There used to be a saying among the settlers that goes something like this: "In going to the border south from Phoenix there are three places en route—*Tucson, Tubac, Tumacacori* and *Tu-Hell!*"

The United States government was sorely tried by the Indian uprisings. It was impossible for the soldiers to catch or control them. The most persistent of the army leaders was Captain (later General) Leonard Wood, who once kept chasing the Indians so doggedly that he is said to have wound up the campaign minus his uniform and wearing only his flannel underwear.

It is too much of an undertaking to go into detail concerning the years 1850 to 1900 when civilization was being brought with great difficulty to Southern Arizona. These years were fraught with terrible violence. Arizona was made a territory in 1863 over the opposition of some of the Northern States, which also opposed its statehood in 1912. Most of the territory had been settled by Texans who were rabid supporters of the Confederacy, and apparently the North felt there should be no more states or territories favorable to the Confederate cause and slavery.

During the War Between the States, when the North was "finding it hard going", it became necessary to recall the Union soldiers, then stationed in Southern Arizona to help with the fighting in the East. The Indians were jubilant over this, believing they had chased the army out. With this triumphant thought they began large scale depredation so that people were afraid to leave the protection of the walled city or mission. Sometimes the Indians came up to the very walls to drive off the cattle and sheep. The situation was little improved until after 1886, although, at one time or another, it seems that practically the whole United States Regular Army was employed in Arizona after the Civil War. Some of the names familiar in the struggle were Generals Howard, Crook and Miles. However, Leonard Wood won the Congressional Medal of Honor for his outstanding military service. General Wood was graduated in Medicine from Harvard. He was serving an internship in Boston when he had some sort of argument with the administration and was expelled. He then went to Arizona where he enrolled in the army as Assistant Surgeon, but was also active in the line. He may have been a contract surgeon for a while, but there is no record of his patients except, later, Mrs. McKinley, wife of the President, in Washington. General Wood was a valiant and admirable leader. His administrations later in Cuba and the Philippines were outstanding.

It is probable that Arizona would not have been settled for many years had it not been for the discovery of valuable minerals—copper, silver, gold, lead, vanadium and many others. Arizona has led all the states in the Union since 1907 in the production of copper.

During the Indian depredations the Arizona country became somewhat unpopular. It was a stopping-off place for people on the way to California, over the Jubilee trail, but the trip became very dangerous. Grant sent Generals Sherman and Sheridan to Southern Arizona to see whether some control of the Indians, particularly the Apaches, could be worked out. It will be recalled that Sherman was quite a realist and an out-spoken man. It is said that in his later years be became an active socialite, attending dances and dressing for dinner every evening. General Sheridan was notoriously brusque and lacking in diplomacy. The two generals interviewed many people and some of them were very anxious to have the government with its soldiers take a hand, not only for protection, but to encourage development of the state. One of the prominent settlers of Tucson told General Sherman there was nothing really wrong with the country—that all it needed was water and society, to which Sherman is said to have replied, "That's all that's needed in hell. Since a war was started with Mexico to get this territory, I shall recommend another to make them take it back". One can readily imagine the General's disgust with the desert and camp life. General Sheridan was the author of the saying that "the only good Indian is a dead Indian", which was unfortunate in that it was not only untrue, but encouraged animosity between the races.

The following story has been attributed to Gen-

XUM

eral Sheridan. The suggestion was made to him that he organize a company of cowboys to fight the Apaches. He is said to have rejected the suggestion in the following words: "A cowboy will not fight unless he is drunk, and the U. S. Treasury doesn't have enough money to keep a company of cowboys drunk long enough to fight a campaign".

No discussion of this territory, in these times, would be complete without mention of the most outstanding man of the time in Arizona—Geronimo, Chief of the Chericahua Apaches. Geronimo was a medicine man of great ability, as many medicine men are. One of his co-chiefs had made a treaty with the United States to which Geronimo did not subscribe. He escaped from the conference, leaving word that he did not intend to abide by the treaty. He then began one of the most brutal and barbaric series of raids and crimes recorded in this country. He raided homesteads, cut the throats of the settlers and drove off the cattle. He did not fight battles; he was a murderer, and a very shrewd one. He would spend the summer pillaging and murdering, then in the Fall he would gather his women, old men and children together and present himself at the reservation, humble and penitent, promising to mend his ways. He and his tribe would be taken in, fed during the winter, then, when spring came, Geronimo and his warriors would be off again in orgies of murder and pillage. Finally, in 1886, General Miles was sent down to capture Geronimo and to put him in prison. A conference was arranged and when Geronimo put in his appearance he was promptly arrested and sent to Fort Pickens, in Florida. Geronimo was very indignant about this treatment when he had come to the conference in good faith. It is said he went so far as to call General Miles a liar, to which Miles replied that he had taken lessons in lying from the greatest liar of all times—Geronimo himself. The situation between the Apaches and the settlers had reached such a point that no half-way measure could be successful. Transportation of these people to some other country where they would be kept in prison was appropriate treatment for the renegades among the Apaches, but General Miles did not differentiate—he sent them all—friends and enemies. Some of the Apache scouts did valuable services for the Untied States Army and were good friends of the settlers, and the imprisonment of these friendly Indians was cause of much criticism.

Geronimo was probably the greatest desert warrior of all times. He rarely, if ever, had large numbers of men. He did not fight battles, but depended on surprise and deception. With bow and arrow sentries could be slain noiselessly, permitting the Indians to be in the midst of a company of sleeping soldiers without a sound being heard and allowing the slaughter of many before they could protect themselves. The Indians then scattered like partridges and would meet at some prearranged hideout completely unknown to the Army.

The doctors in the territory of Southern Arizona were a rather superior group of professional men, as a rule. In the first place, they had to be men of wonderful physical constitution to make the trip by wagon or on horseback over the Santa Fe trail from Independence, Missouri. They had to have an adventurous spirit as well as physical stamina. Furthermore, a number of them were graduates of such universities as Yale, Harvard and Columbia. Some went to the Southwest to find a suitable climate for members of their family who were ill. Doctors played an important part in the civic activities and were an influence in the community. Dr. B. B. Moeur was governor of Arizona in 1932 and served two terms. Two doctors won the Congressional Medal—General Wood, as previously mentioned, and Doctor J. B. D. Irwin, who was the first to establish a tent field hospital in battle. This was at Shiloh, in Tennessee, during the Civil War. Prior to that time, wounded soldiers had not been treated until they could be evacuated to hospitals in the rear. Another outstanding doctor was Walter Reed. The writer feels somewhat apologetic for not having known more about Walter Reed before going to Arizona. As an Army surgeon Dr. Reed did a considerable practice among civilians there and was highly regarded. He apparently did not have the belligerent tendencies of General Wood, but he began to show distinct evidence of greatness before he discovered the cause and manner of transmission of yellow fever.

One of the most outstanding medical men who practiced in Tombstone and Tucson in those violent days was Doctor George E. Goodfellow, who was born in California in 1855, and died in 1910. When he went to Tombstone, the opportunity to treat gunshot wounds was extremely good—at least the

material was abundant. It is said the town of Tombstone had its man for breakfast every morning. Pistol and gunshot wounds, injuries from the mines and riding horses, probably gave to Goodfellow the widest experience in traumatic surgery in America up to that time. He was a man of considerable ability, very forceful and aggressive. He was offered an appointment to West Point, but refused it on hearing there was no segregation of the races at the Academy. Later he accepted an appointment to the Naval Academy. A short time after matriculating there he was passing a colored cadet, by the name of Conyers, on the third floor landing. It is said the colored boy deliberately brushed against Goodfellow. At any rate, Conyers was found unconscious on the first floor landing some time later. Although there were no witnesses, Goodfellow did not attempt to deny participation in the episode and was expelled from the Academy. Admiral Schley presided over the Court of Inquiry which dismissed Goodfellow. Admiral Robley Evans, who was familiar with the case, said, "In our efforts to protect the colored boy we ran into the error of paying him too much attention and he gave himself undue importance and was really unbearable". Later on the same boy was involved in an altercation with another cadet and was forthwith dismissed. Goodfellow was said to have been the best boxer at the Academy. After leaving Annapolis he studied medicine with a relative and later on entered Wooster Medical School in Ohio. After graduation he went to Prescott where his father was a mining engineer. Although his father had never studied medicine he treated most of the miners for injuries and illnesses. Goodfellow did not stay long in Prescott, but went on to Tombstone, the name of which seemed to have a strange fascination for some people. This town is located about seventy miles from Tucson and thirty from the Mexican border. Tombstone probably at one time had more dangerous men than any city in the Southwest. Among these were Bat Masterson, Luke Short, Wyatt Earp and his brothers, Johnny Ringo, Curly Bill, King Fisher, Ben Thompson and many others.

Goodfellow took part in all civic activities, including an occasional lynching. He was appointed coroner and many of his recorded verdicts were colorful and in tune with the times. On one occasion five cowboys ran berserk on a December afternoon in 1883, in a town named Bisbee, about thirty miles south of Tombstone. They were off on a shooting spree through the stores of the settlement. They killed three people. Several posses were formed to track the killers down. One was led by a John Heath who soon brought suspicion on himself by directing the posse in the opposite direction from that in which the murderers were known to have fled. It was finally discovered that Heath was one of the murder gang and that the raid had been instigated and plotted in Heath's own barroom at the edge of town. A trial was held and all were sentenced to hang except Heath who was not actually present at the shooting. He was given 18 years in prison at Yuma. The following day an aroused citizen's group lynched Heath. The Court's verdict had not satisfied the people of Bisbee and Tombstone, so they meted out their own punishment. Goodfellow, then coroner, made out one of his famous opinions, reporting somewhat as follows: "The deceased died from emphysema of the lungs, a condition often caused by sudden variation in altitude, and failure to keep feet on ground". This evasive report was undoubtedly due to the fact that Goodfellow, himself, had been seen mingling with the mob that had carried out the people's verdict and he could not, therefore, use the usual statement: "Death by parties unknown".

Another of Doctor Goodfellow's reports as coroner read like a mining engineer's opinion: "Assessment of the deceased showed the tissues loaded with lead but too badly punctured to hold whiskey". While many of the stories told about Dr. Goodfellow are legendary, the fact remains that he was a very colorful and outstanding person.

Goodfellow had quite a reputation as a surgeon, although surgeons in those days, in both East and West, were often referred to as "butchers". He probably had the greatest experience in gunshot wounds of the intestines of anyone in America, but he lamented the fact that he could never cure a case of gunshot perforation of the intestine. One can readily understand his handicaps in that day. However, Goodfellow was really a pioneer in prostatectomy. Hugh Young credits him with being the first surgeon to completely remove the prostate gland through a perineal incision. He reported 78 out of 80 prostatectomies with complete success and only two deaths, one from shock and the other from hemor-

XUM

rhage. This is a most creditable record for any era. It was said that he operated on many of his patients in the early days on a door laid across two whiskey barrels.

One of Goodfellow's most famous cases was that of Doctor Handy, a prominent doctor in Tucson, chancellor of the University of Arizona and chief surgeon of the Southern Pacific Railroad. Doctor Handy had come to Tucson in 1892. There was bad feeling between Handy and Francis Heany, a lawyer who was representing Handy's wife in divorce proceedings. Doctor Handy was said to have threatened to kill Heany. They met one day on the street in Tucson and Doctor Handy pulled his gun. In the ensuing scuffle Doctor Handy was shot with his own pistol. A wire was sent Doctor Goodfellow, who was then in Tombstone. There being no railroad connection, Doctor Goodfellow, with his daughter, drove a team of horses to Fairbanks, went by narrow gauge railroad to Benson and engineered his own train from Benson to Tucson. He operated on Doctor Handy, but the patient died at the close of the operation. There were 18 perforations of the intestines. Heany was acquitted at the trial and it was he who prosecuted Albert B. Fall in the Tea Pot Dome case several decades later.

Doctor Handy died on September 24th, and on October 3rd Dr. Goodfellow was appointed Chief Surgeon of the Southern Pacific Railroad to take his place. Some of his enemies said that Doctor Goodfellow had not been too anxious to save Handy as he hoped to get his job, but other facts would refute this.

During the Spanish-American War, Goodfellow went as civilian aide to General Shafter, who requested his services, Goodfellow was the only man on the staff who could speak Spanish fluently; therefore, he was selected by Shafter to conduct negotiations with the Spanish Commander. Goodfellow never had any military rank. In these negotiations, Goodfellow felt that better terms could be reached and settlement made with the Spaniards if plenty of whiskey were provided in the conference room. He later said that never had alcohol been used for a better or more therapeutic cause.

Doctor Goodfellow went from Tombstone to Tucson and from there to San Francisco. He had a good practice in San Francisco and during this time he went down to Bavispe, Mexico, to treat a large number of people who had been injured in an earthquake and had no physician. The Mexicans were so grateful to Doctor Goodfellow for his services that they showered him with gifts and told him he could have all the slaves he wanted to take back with him to the States. He compromised, however, by accepting a thoroughbred Kentucky saddle horse, which had probably been stolen from one of the United States Army officers. They called him "The Sainted Doctor", much to his embarrassment.

Later on, in San Francisco, Doctor Goodfellow made some bad investments and it was thought by many that his business partners did not live up to their agreements. He left San Francisco very much disillusioned and went to Guaymas, Mexico, where he soon developed a generalized neuritis. Discussion of this disability is rather interesting in that Goodfellow was said, by his enemies, to have alcoholic neuritis. His friends denied this, but made no diagnosis. The author was told by one who was acquainted with Dr. Goodfellow that he had been known to drink a quart of gin before breakfast. Goodfellow, himself, felt his condition was due to beri-beri which he had contracted some years previously. At any rate, the disease was progressive and fatal. Goodfellow was one of the most prominent surgeons of his time. Certainly, in my research, I have found no one of his time who approached his experience and ability.

There were two other men, so-called doctors, who made names for themselves in Southern Arizona during this period. One was Doc. Holliday, a dentist from Valdosta, Georgia. Holliday had severe tuberculosis. He first went to Dallas, Texas, and began practice but he coughed so much he drove his patients away. He then took to gambling and in a card game killed a soldier. He hurriedly left Texas and went further west, but never practiced his dentistry again. On occasions he was known to render first-aid in shooting scrapes. His main vocation was gambling, at which he was an expert and he was known as one of the most deadly gunmen in the Southwest. He was absolutely without fear and, while he was not a killer, he seemed to be happy only during a gun battle. He was a great friend of some of the peace officers, particularly Wyatt Earp, and he actually courted death aiding them in the performance of their duties. However, he was not allowed to die with his boots on.

He is said to have drunk a quart of whiskey without stopping one day, and after remarking: "That's funny—I don't feel this whiskey at all", he dropped dead.

There was only one doctor in Tucson in 1860—Doctor Meyer, who was also Justice of the Peace. His knowledge of medicine was evidently very elementary. He had two books: Materia Medica, and, as he described it, "a book on bones". It is said he based his knowledge of law on these two medical books. When he had a difficult case to decide in court he seemed to find a solution of the problems in one of these two books. Doctor Meyer often tried to overcome his loneliness with the alcoholic treatment, it is said.

Southern Arizona remains divided today by a great feud that existed in Tombstone in 1880-81. With many older people, who have first hand information of this feud, there reveals a difference of opinion relative to the merits of the contention that existed between the Federal law enforcement officers and the local peace officers. Wyatt Earp, United States Deputy Marshal, with his brothers as Town Marshals, was said to have been against the Clantons and the McLowerys, well-known cattle rustlers in the area. The feud came to a head in Tombstone in 1881. One of the Clantons and both of the McLowery boys were killed. Wyatt Earp was not touched, but his brother, Morgan, was badly wounded. This encounter was known as the "fight at the OK Corral" and is celebrated in Tombstone under the name of "Helldorado".

One very alert elderly lady, now living in Tombstone, and who had lived there at the time of this famous duel, lends her support to the Earp contingent. She states that Earp was appointed by the United States Government. He was a Republican and therefore not liked in Tombstone, which was predominantly Democratic. Arizona has remained Democratic since that time with only an occasional Republican governor. The main reason for this was that they had a lot of silver in Arizona and the people wanted free silver.

Arizona was admitted as a state in 1912, and thus became the 48th and youngest state in the Union. There was considerable opposition to this admission from some of the Northern states as it was felt that Arizona would go along with the Southern states as it usually has. Arizona insisted on putting in her constitution the referendum and recall features and election of judges by popular vote. President Taft particularly objected to this and said if these were omitted he would approve admission of the state. Arizona legislature agreed to this but did not do it. Judges are now elected by the people. I have been informed that the referendum and recall feature has been invoked only on one occasion.

One characteristic of the people of Arizona that is most outstanding is their readiness to celebrate at the drop of a hat. They will whip up a big celebration at the slightest provocation, sometimes most hilariously. One such tremendous celebration was staged in 1880 in Tucson when the Southern Pacific Railroad was completed into that town. A prominent citizen arranged a big party at which congratulatory telegrams were to be read. The party was going well. After each telegram was read the whole crowd would adjourn to the bar to take a round of drinks. There were telegrams from the President, Governors of states, United States Senators, Congressmen, etc. Finally one came from Queen Victoria, signed by her secretary, Lord Beaconsfield. This called for champagne, after which there was a lull in telegrams. The delegation from Tombstone had been right much hurt over Tucson's getting the railroad and having the party, although they were rather well consoled with whiskey. They brought a telegram from Rome signed "Antonelli, Secretary of the Pope", which read as follows: "His Holiness, the Pope, acknowledges with appreciation receipt of your telegram informing him that the ancient city of Tucson at last has been connected by rail with the outside world, and sends his benediction, but for his own satisfaction, would like to ask: *Where In Hell is Tucson, anyway?*" This was a blow to the pride of the Tucson citizens. They had sent a notice to the Pope and they actually believed that this fictitious telegram was his reply.

Many interesting things may be written about Arizona—this youngest state in the Union. It is populated by people from many areas, but there is a universal hospitality and friendliness that is felt throughout the state. The medical profession there has made great strides when we think that not so long ago the doctor in that area had to be as adept with a six-shooter as he was with the scalpel. Today they have many well-equipped hospitals and many

XUM

prominent doctors, whose voices are heard in the councils of the national medical profession.

At some future time it may be possible to extend some of these observations and to include others of equal interest.

REFERENCES

Arizona Guide.
Tombstone, by Walter Noble Burns.
The Last Chance, by Myers.
Tombstone's Epitaph, by Martin.
Helldorado, by Breakenridge.

Urge More Enlightened Attitude Toward Leprosy.

Increasing interest in leprosy and the encouraging number of therapeutic agents available open an entirely new vista to the leper, it was stated in the October 11 J.A.M.A. With this improvement in treatment must come a more enlightened attitude toward this disease, according to Drs. George W. Zeluff, Houston, and G. J. Hayes, Alvin, Texas, who added:

"The word leprosy has cast a shadow of terror before it since times of antiquity. Despite the fact that it is far less contagious than tuberculosis and infinitely less prevalent, leprosy is considered a much greater hazard by the general public and, perhaps, by the medical profession."

Leprosy, the doctors said, is a chronic, indolent, infectious disease. Only 0.1 per cent of the total persons afflicted with it are found in the United States, and the majority of these are found in California, Texas, Florida and Louisiana. There are 5,000,000 other lepers in the poverty-stricken, less enlightened areas of the world. The incubation period of leprosy varies from one to 10 years, and the disease is most frequently found in persons in their thirties.

Recent new advances in chemotherapy have made a marked improvement in the prognosis of leprosy, the doctors pointed out. Although all forms of treatment still require months or years, the greater efficacy of such drugs as the sulfones has radically changed the course and future of treatment in early leprosy.

Some gradual breaches in the wall of ignorance, stigma and therapeutic nihilism that has surrounded the victims of this disease, according to the doctors, are the medical discharge of a patient from the National Leprosarium in Carville, La., while still in the communicable stage of the disease, the removal of the barbed wire from the fence around the hospital, and the discharge of a patient from the leprosarium after six negative bacteriological examinations, instead of the usual 12.

New Books.

We list below some of the newer additions to the Tompkins-McCaw Library of the Medical College of Virginia, Richmond. These may be borrowed by our readers under usual library rules.

Annual review of microbiology. V. 6, 1952.
Army Medical Service Graduate School—Symposium on treatment of trauma in the armed forces. 1952.
Barber—The trembling years. 1949.
Barker—The unipolar electrocardiogram. 1952.
Barrett—Ward management and teaching. 1949.
Barta—The moral theory of behavior. 1952.
Cornell Conferences on therapy. V. 5, 1952.
Dublin—A 40 year campaign against tuberculosis. 1952.
Glasstone—Sourcebook on atomic energy. 1950.
Harris—Vitamins. 1951.
Josiah Macy, Jr. Foundation—Connective tissues. 1952.
—Nerve impulse. 1952.
—Shock and circulatory homeotasis. 1952.
Krupp—Physician's handbook. 7th ed. 1952.
Lansing—Cowdry's problems of the aging. 3rd ed. 1952.
Lewin & Gilmore—Sex after forty. 1952.
Merck & Company, Inc.—Cortone; a handbook of therapy. 1952.
Olmsted & Olmsted—Claude Bernard and the experimental method in medicine. 1952.
Stewart—Cardiac therapy. 1952.

MENTAL HEALTH

JOSEPH E. BARRETT, M.D.
Commissioner, Department of Mental Hygiene and Hospitals

Helping Patients to Help Themselves*

The traditional role of the doctor has included, in addition to the medical care of his patients, the task of acting as their friend, confidant and advisor in many problems of life. The old-fashioned family doctor of whom we hear and read so much played this part as a natural function of his profession, realizing in a practical, even if not in a scientific way, that the emotional reactions of the patients toward their everyday difficulties often acted as obstacles to treatment or, conversely, as powerful aids to therapy. As medical practice has become more complex, as the demands upon the physician's time have increased unbearably, and as specialization has made personal contact more difficult, these phases of the doctor's endeavor have come to occupy a minor place in his efforts. Fortunately, however, we can see that the pendulum is swinging back. The knowledge brought forth by psychosomatic medicine has made it plain to every practitioner that he can no longer neglect the emotional life of his patients if he is to obtain the best therapeutic results. He must not only minister to their physical ills, he must also aid them to recovery by helping where he can in the solution of those problems of living which create emotional turmoil and thereby cause or prolong illness or retard recovery.

Too often, the help which the patient requires is of a sort that the doctor feels himself ill equipped to give. Or, he may be just unable to afford out of a busy practice the hours that are usually needed to discuss family and other emotional difficulties, and thus to lead the patient to develop a solution which will enable him to live in peace with himself and to achieve mental and physical health. The task is one in which aid is required, one which the physician can best discharge by turning it over to those who have skill in helping people and whose task it is to give that help. The social agencies found in most of our communities perform exactly these functions. It is logical for doctors to use them whenever their patients require such services.

There have, unfortunately, been many misconceptions regarding social work, social workers and the agencies with which they are connected. Perhaps a few words of description will help to dispel such erroneous ideas. In recent years social work has become a recognized profession. Formerly almost wholly a woman's field, it is today being increasingly shared by men. The well-equipped social worker has followed graduation from college by a course of professional training, lasting two years, in a recognized school of social work (there is one in Virginia at Richmond Professional Institute). The course of study includes a period of carefully supervised field work analogous to the clinical clerkship of the medical curriculum. Then, in their earlier years of employment, social workers are supervised much as are internes in hospitals.

Secondly, the task of social case work is definitely not that of snooping into people's private affairs, as is often alleged. Probably the best formulations of the profession describe casework as "the art of helping people to help themselves" or "the art of helping people out of trouble". The aim of the social worker is to make himself unnecessary as rapidly as possible. He (or she) tries to build up in the client a self-sufficiency such that he can adequately meet the problems of his daily life. This end is not accomplished by telling people what to do, but rather by helping them to understand themselves and thereby leading them to work through their feelings and to arrive at ways of meeting their own needs. Any other procedure would only increase dependence and thus merely relieve present stresses without affording permanent help.

The number and variety of case-work agencies and their names naturally differs from one community to another. Our larger cities have many, our smaller communities fewer. Rural areas are served either by agencies in neighboring towns and cities or, for certain limited services, by the welfare departments of the counties. It is thus necessary to speak in more or less general terms. In our larger communities there is a Council of Social Agencies, Social Planning Council, Community Fund or Community Chest whose office will be able to advise a doctor as to the name and location of the local organization that offers the particular service needed for a patient.

Let us consider, first of all, the problems of family life. These include such things as the disruptions that come with illness of the breadwinner or the homemaker, difficulties in adjustment between husband and wife or between parents and children, financial troubles, inability adequately to budget in-

*Article by Gilbert J. Rich, Ph.D., M.D., Director, Roanoke Guidance Center, Roanoke, Virginia.

XUM

come, the many worries of domestic life, and a host of others. A city that has developed any privately supported agencies at all will probably have a family case-work agency. It may be known as Family Service, Family Welfare, or some similar name. In addition one or two of our largest cities have special agencies to serve sectarian groups. The work of a family agency is not primarily the giving of financial relief, but rather that of counselling, with families in difficulty in such a way as to help them out of their troubles. The giving of actual financial aid is the task of the Welfare Departments of our cities and counties. Family agencies give other types of aid. The doctor who refers to such an agency a family that is in difficulty will be pleasantly surprised to find out how helpful it can be.

Another typical problem often encountered is the need by the unmarried mother for helping in planning for her confinement and for the placing of her baby for adoption. On the other hand, childless couples are asking for aid in finding babies to adopt. While the family agencies help the unmarried mother with her problems of confinement, including the decision as to whether to keep and raise the infant or to release it for adoption, the work of adoption belongs to the more specialized children's agencies. There is the Children's Home Society, which has a number of branches throughout the state, as well as several sectarian agencies. In addition, the Welfare Departments of the cities and counties serve as adoption agencies. The unmarried mother who wishes to place her baby for adoption and the couple looking for a child to adopt should be referred to one of these agencies for help. The Social Worker makes a careful investigation both of the background and the health and, frequently, mental development of the child, as well as of the suitability of the home to adopt a child in general, and this child in particular. Not by any means are all couples desiring to adopt a child suitable parents. No doctor would consider the investigation improper if he, like the psychiatrist in a child guidance clinic, has seen the numerous preventable tragedies that have resulted from ill-conceived adoptions that were arranged without adequate study. The future life not only of a child but also of a whole family is too serious a matter to be decided lightly and without expert advice and consideration. A child's life that is ruined by an unsuitable adoption is as serious an error as one that is ruined by failure to prevent physical defects.

The physician often desires help with patients who exhibit mental and emotional problems, more especially children whose conflicts show as difficult behavior, school problems, enuresis, feeding difficulties, psychosomatic complaints and the like. There are now some fourteen mental hygiene clinics in various parts of the state, operated under the auspices of the Department of Mental Hygiene and Hospitals. They are called Guidance Clinics, Guidance Centers, Children's Centers, etc. Some limit their service to children, while others serve both children and adults. Their function is essentially the prevention of mental illness through the treatment of emotional maladjustment before it develops into serious illness. The emotional problem which the doctor feels is not within his province to deal with can be referred to one of these clinics for aid and assistance. It is unfortunate, of course, that there are not enough clinics to serve the entire state.

There are other organizations which aid in the emotional development of children. On the one hand are the agencies which deal with groups of children, the so-called group-work or character-building agencies, including YMCA, YWCA, Boy Scouts, etc. On the other hand stands the Juvenile Court. It is authoritative in its nature and should be thought of only when the situation is desperate or when there is no other resource.

It is obviously impossible to mention here every social work resource, especially since they differ from community to community. However, a realization that such agencies do exist should stimulate the doctor to ask about what is available to him and to make use of it whenever desirable.

Although they are often supported by donations, the social agencies should not be thought of as charities whose services are only for the poor. Families of moderate and even affluent financial standing have the same personal and emotional problems as those in more difficult circumstances. Their money is not a barrier to receiving the services which they need. Some social agencies have their clients pay for service according to their ability—and the others will gladly accept donations. The day has long passed when social work was considered charity. Today it is service, service to the community and to the families and individuals who make up the community. The services are there. It is the doctor's place to make use of them for the benefit of his patients.

PUBLIC HEALTH

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Geographic Distribution of Poliomyelitis in Virginia

In 1950 there were 1,200 cases of poliomyelitis reported in Virginia—the largest number for any year on record. The southwest part of the state that year was particularly hard hit, with Wythe County reporting 184 cases (an attack rate of 788.8 per 100,000 population).

In frequent contact with physicians in this area, the opinion was often expressed that Southwest Virginia must be an area endemic for poliomyelitis as this region seemed to have more reported cases than other sections of the state.

In an attempt to demonstrate any basis for this opinion, we have divided the state into eight sections, primarily on a geographic basis but recognizing that the counties in each group have some cultural, occupational, residential and climatic features in common.

The grouping is as follows:

GROUP 1—SOUTHWEST—Lee, Scott, Wise, Dickenson, Russell, Washington, Buchanan, Tazewell, Smyth, Bland, Wythe, Grayson, Giles, Pulaski, Carroll, Montgomery, Floyd, Patrick, Roanoke, Roanoke City.

GROUP 2—WESTERN AND VALLEY—Craig, Botetourt, Alleghany, Rockbridge, Bath, Highland, Augusta, Rockingham, Page, Shenandoah, Warren, Frederick, Clarke.

GROUP 3—METROPOLITAN — Loudoun, Fauquier, Prince William, Fairfax, Arlington, Alexandria.

GROUP 4—PIEDMONT — Rappahannock, Madison, Culpeper, Greene, Orange, Albemarle, Louisa, Fluvanna, Goochland, Buckingham, Cumberland, Powhatan, Charlottesville.

GROUP 5—SOUTH CENTRAL — Henry, Franklin, Bedford, Amherst, Nelson, Appomattox, Campbell, Pittsylvania, Halifax, Charlotte, Prince Edward, Amelia, Nottoway, Lunenburg, Mecklenburg, Brunswick, Greensville, Danville, Lynchburg.

GROUP 6—NORTHERN NECK AND EASTERN SHORE—Stafford, King George, Spotsylvania, Caroline, Westmoreland, King William, King and Queen, Essex, Richmond, Middlesex, Lancaster, Northumberland, Mathews, Gloucester, Accomac, Northampton.

GROUP 7—RICHMOND AREA—Dinwiddie, Prince George, Chesterfield, Charles City, Henrico, New Kent, Hanover, Richmond City, Petersburg.

GROUP 8—NORFOLK AREA—James City, York, Surry, Sussex, Southampton, Isle of Wight, Nansemond, Norfolk, Princess Anne, Hampton City, Warwick City, Portsmouth, Newport News, Norfolk City.

High Incidence Years	1944		1948		1950	
	Population	Rate	Population	Rate	Population	Rate
STATE OF VIRGINIA	2,800,000	27.0	3,145,497	18.0	3,318,680	36.2
GROUP 1	565,314	43.0	633,358	12.3	660,627	68.3
GROUP 2	248,881	35.8	273,440	15.7	288,991	28.0
GROUP 3	251,222	25.1	326,570	28.2	368,337	38.3
GROUP 4	132,978	20.3	144,393	33.9	151,735	20.4
GROUP 5	446,320	25.8	483,875	18.0	501,913	31.9
GROUP 6	166,643	31.8	174,077	14.9	185,906	17.8
GROUP 7	379,275	17.9	414,697	18.3	448,574	31.0
GROUP 8	609,362	17.9	684,796	18.3	712,239	31.0

In the following table are listed, for certain years of high incidence, the poliomyelitis attack rates for the whole state and the attack rates for the several groups of counties for the same years.

Inspection of this table shows that for two of the years listed (1944 and 1950) the attack rate of Group 1 (the Southwest) was higher than that of any of the other groups and higher than that of the state as a whole.

In 1948, however, the attack rate of Group 1 was lower than that of any other group.

The evidence, therefore, that the Southwest gets

more than its share of poliomyelitis is suggestive, but a larger series would be required before claiming any significant difference in geographical distribution of poliomyelitis during years of high incidence.

MONTHLY REPORT OF THE BUREAU OF COMMUNICABLE DISEASE CONTROL

	Oct. 1952	Oct. 1951	Jan.-Oct. 1952	Jan.-Oct. 1951
Brucellosis	1	5	34	71
Diarrhea and Dysentery	213	393	2,167	2,695
Diphtheria	40	38	113	126
Hepatitis	65	5	617	23
Measles	44	94	15,379	13,840
Meningitis (Meningococcic)	13	7	163	102
Poliomyelitis	109	44	630	235
Rabies in Animals	29	9	400	179
Rocky Mt. Spotted Fever	1	1	73	59
Scarlet Fever	36	49	595	790
Tularemia	0	2	41	35
Typhoid and Paratyphoid	9	11	79	52

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF VIRGINIA

President—
MRS. THOMAS N. HUNNICUTT, JR., Newport News
President-Elect—MRS. K. W. HOWARD, Portsmouth
Treasurer—MRS. WM. C. BARR, Richmond
Recording Secretary—MRS. LEE S. LIGGAN, Irvington
Corresponding Secretary—
MRS. F. A. CARMINES, Newport News
Publication Chairman—
MRS. ROBERT H. DETWILER, Arlington

The Southwestern Virginia Auxiliary

Met at the Governor Tyler Hotel in Radford, September twenty-fifth.

Mrs. James King of Radford was elected president of the organization, succeeding Mrs. W. C. Caudill of Pearisburg.

Other officers elected were Mrs. C. C. Hatfield, North Holston, president-elect, Mrs. M. C. Newton, Narrows, vice president, Mrs. Joseph Coates, Galax, secretary and Mrs. W. H. Malan, Dublin, treasurer.

Mrs. C. F. Manges, Blacksburg, installed the officers.

State chairmen present were Mrs. W. A. Porter, Hillsville, chairman of To-day's Health and Mrs. R. H. Harrington, Marion, chairman of Exhibits.

The speaker for the afternoon program was Mr. Robert I. Howard, executive secretary and treasurer of The Medical Society of Virginia. His subject was "The Value of a Woman's Auxiliary to a Medical Society.

ANNIE E. COX (MRS. J. GLENN)
Secretary

Arlington Auxiliary.

The first meeting of the 1952-53 season was held at the Washington Golf and Country Club in Arlington, Va., on September 9, 1952, at which time the new officers presided. They are as follows: President, Mrs. J. Raymond Hutchinson; President Elect, Mrs. Lee Martin; Vice-President, Mrs. Robert L. Norment; Recording Secretary, Mrs. Michael Puzak; Treasurer, Mrs. Frazier Williams; Parliamentarian, Mrs. John Hazel; Historian, Mrs. Jerome Cope; Social Chairman, Mrs. Albert Orlosky; Program Chairman, Mrs. K. Charles Latven; Today's Health, Mrs. J. Rollins McGriff; Publicity, Mrs. Sigmund Newman; Membership, Mrs. John H. Gilligan; Telephone, Mrs. Stephen Sheehy; Public Relations, Mrs. Mervin W. Glover; T. B. Handicraft sale, Mrs. Robert Detwiler; Bowling, Mrs. J. C. Waters.

It was nice getting together again after the summer and seeing our friends looking so fresh and ready to work for the coming season.

Our October meeting will be held in the form of a Membership tea on October 14, at the home of Mrs. K. Charles Latven. We will miss our President, who is on an extended trip to California with her husband, Dr. J. Raymond Hutchinson.

The Auxiliary is co-sponsoring with the Arlington Tuberculosis and Health Association, a third annual sale of articles made by tuberculosis patients in the various sanatoria in Virginia and those homebound in Arlington, to be held December 4, 5, and 6 at the Arlington Trust Company. Last year, over $600 worth of articles were sold. Well-made materials including needlework, leatherwork, woodwork, costume jewelry and ceramics will be featured.

Alexandria Auxiliary.

The Auxiliary met Tuesday evening, September 16, at the home of Mrs. Richard E. Palmer.

On the agenda for the coming year is the continuation of the collection and distribution of shoes to needy children through a local shoe center. Providing Alexandria Hospital School of Nursing Sholarships is one of the chief projects of the Aux-

iliary. A buffet supper is planned and served at each Medical Society meeting by an Auxiliary committee. Sponsoring a Girl Scout Hospital Aid Troop is still another project.

The first social event of the season, a masquerade at Gadsby's Tavern on October 25, will be a membership party to welcome doctors and their wives who are new in the community.

Mrs. Forrest Swisher is president. Mrs. John D. Hoyle is vice-president and Mrs. Richard E. Palmer is treasurer. Mrs. John Zearfoss is recording secretary and Mrs. James Gilbert is corresponding secretary. President-elect is Mrs. Eugene Grether. Mrs. Anderson-Engh is parlimentarian. Chairmen of standing committees include: Mrs. George Speck, Doctor's suppers; Mrs. F. Preston Titus, membership; Mrs. Christopher Murphy, program; Mrs. J. J. Moriarty, Girl Scouts; Mrs. Milton Stein, shoe center; Mrs. Robert H. Anderson, public relations.

Northampton-Accomac Auxiliary.

On Tuesday, October 14th, the Auxiliary held its regular fall meeting at the home of Mrs. W. A. Eskridge, at Parksley.

The meeting was opened with the reading of The Lord's Prayer by the retiring president, Mrs. John Wise Kellam.

Letters to the Auxiliary and changes in the By-Laws were read by Mrs. Kellam.

Members were urged to get out and vote in November.

Nurse recruitment folders were given members to be placed in the High Schools of both counties.

Minutes of the April meeting were read by the secretary, Mrs. W. Carey Henderson and the treasurer's report was given.

A new member was welcomed into the Auxiliary, Mrs. T. B. Hardman of Cape Charles.

Funds were voted for The Leigh-Hodges-Wright Memorial, and for The March of Dimes.

The Chairman of the Nominating Committee, Mrs. W. Carey Henderson, announced nominations. They were unanimously elected to serve for 1953 and 1954.

Vice-President and President elect for 1953-54, Mrs. E. E. Milhalyka; Secretary for 1953, Mrs. H. L. Denoon, Jr.; Treasurer, Mrs. John Rogers Mapp.

The meeting was then turned over to the incoming president, Mrs. John R. Hamilton, who was presented with the Silver Vase for her term of office.

A delicious dessert course was served by the hostess, Mrs. W. A. Eskridge, following the business meeting, and a social hour was enjoyed by all members.

The January meeting will be announced later.

CATHERINE R. TROWER
(MRS. HOLLAND)
Chairman Press and Publicity.

BOOK ANNOUNCEMENTS

Rypins' Medical Licensure Examinations. Topical Summaries and Questions. By WALTER L. BIERRING, M.D., F.A.C.P., M.R.C.P., EDIN. (HON.), Former Member, National Board of Medical Examiners, American Board of Internal Medicine, Iowa State Board of Medical Examiners; Professor Emeritus, Theory and Practice of Medicine, College of Medicine, State University of Iowa; etc. With the Collaboration of a Review Panel. Seventh Edition Philadelphia, J. B. Lippincott Company. 1952. xvi-856 pages. Cloth. Price $8.00.

Living With Cancer. By EDNA KAEHELE. Doubleday & Company, Garden City, N. Y. 1952. 160 pages. Cloth. Price $2.00.

Research in Endocrinology. By AUGUST A. WERNER, M.D., and Associates. Edited by Al R. Schmidt, City Editor, Belleville Daily Advocate, Belleville, Ill. 1952. 285 pages. Cloth.

Sex After Forty. By S. A. LEWIN, M.D., AND JOHN GILMORE, PH.D. Introduction by Dr. Russell L. Dicks, Professor of Pastoral Care, Duke University. Medical Research Press, New York, N. Y. 1952. 200 pages, Illustrated. Cloth. Price $3.50.

Physical Diagnosis. By HARRY WALKER, M.D., F.A.C.P., Professor of Clinical Medicine, Medical College of Virginia, Richmond, Va. St. Louis, The C. V. Mosby Company. 1952. 461 pages with 126 Ilustrations. Cloth. Price $8.00.

Cardiac Therapy. By HAROLD J. STEWART, M.D., Associate Professor of Medicine, Cornell University Medical College, New York; Attending Physician, New York Hospital; etc. Paul B. Hoeber, Inc., New York. 1952. x-622 pages. Illustrated. Cloth. Price $10.00.

XUM

THE ANNUAL MEETING IN RICHMOND—

Dr. and Mrs. Alexander F. Robertson and Dr. and Mrs. Vincent W. Archer (Past President and President-Elect).

Dr. Frank A. Farmer, Dr. H. C. Bates, and Dr. W. C. Welburn. (Councilors and Vice-President)

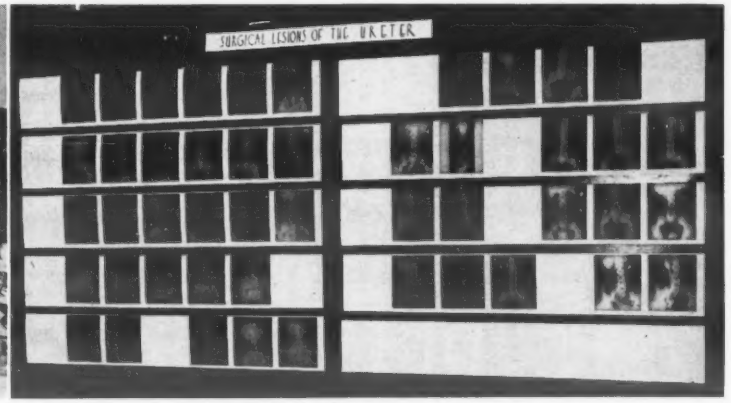
Mrs. Ralph Eusden, President Woman's Auxiliary to A.M.A.; Mrs. Herman Farber, retiring President Woman's Auxiliary to The Medical Society of Virginia; Dr. John T. T. Hundley, retiring President M.S.V.; Mrs. Hundley; and Mrs. V. Eugene Holcombe, President Woman's Auxiliary to the Southern Medical Association.

Dr. James L. Hamner, President, The Medical Society of Virginia, and Mrs. Hamner.

Mrs. Maynard R. Emlaw, Co-Chairman for Ladies, and Dr. Kinloch Nelson, General Chairman.

AND A GOOD TIME WAS HAD BY ALL!

Dr. Ira L. Hancock, Dr. R. M. Reynolds, Dr. Russell Smiley, Dr. E. M. Mann and their wives.



First Prize for Scientific Exhibits by Drs. A. I. Dodson and W. J. Frohbose, Richmond.

Medical Quackery—Sponsored by the Public Relations Department of the Society.

Dr. Oscar Ward, Jr., and his Harem.

PROCEEDINGS

THE MEDICAL SOCIETY OF VIRGINIA

1952 ANNUAL MEETING

Richmond

September 28, 29, 30 and October 1, 1952

COUNCIL

September 28, 1952

The Council of The Medical Society of Virginia was called to order by the President, Dr. John T. T. Hundley, at 3:00 p.m., Sunday, September 28, 1952 at the Jefferson Hotel. Those present were Dr. James L. Hamner, Dr. C. L. Harrell, Dr. Mack I. Shanholtz, Dr. Ira L. Hancock, Dr. A. A. Creecy, Dr. Walter P. Adams, Dr. Guy W. Horsley, Dr. Wilkins J. Ozlin, Dr. Louis P. Bailey, Dr. Frank A. Farmer, Dr. Harold W. Miller, Dr. Vincent W. Archer, Dr. James P. King, Dr. Harry C. Bates, Jr., and Dr. Lewis H. Bosher, Jr.

The motion was made to accept the minutes of the previous meeting as published in the *Monthly*. This passed unanimously.

First on the agenda was the presentation of a group insurance plan for Society approval by the Continental Casualty Insurance Company, which was given by Mr. William Coyle, Eastern Regional Manager. He explained the advantages of the plan and its several variations. Dr. Hundley explained that the Medical Service Committee had looked into the plan but was not willing to make a final recommendation. It was brought out that there was little difference in the rate the county society could obtain and that offered the state society. Dr. Farmer made the motion that the Council approve the action of referring it to the component societies for consideration on the local level. This passed unanimously.

Dr. J. H. Scherer was next introduced for the purpose of offering an objection to the plan of the Office of Defense Mobilization for a national blood program, dated February 18, 1952. The American Association of Blood Banks opposes t is p-ogram and has offered a national security program approved by the Association in its stead. Dr. Scherer then read the resolution adopted by the Association against the program. He explained that the whole blood program of the country, in war and peace, is in the hands of two federal agencies and the Red Cross, with the medical profession having no say. They are therefore requesting that the A.M.A., representing the medical profession, request proper representation in the control of any emergency blood program and that the need for a national blood program be further explored. Dr. Scherer suggested that The Medical Society of Virginia prepare a resolution and send it to our Congressmen, the A.M.A., and the President. Dr. Horsley felt that we should inform the A.M.A. that we are cognizant and concerned that the medical profession is not adequately represented. The motion was made that the resolution of the American Association of Blood Banks be approved in principle by the Council and presented to the House of Delegates for action. This passed unanimously.

Dr. Hundley then discussed the background of the American Medical Education Foundation, and introduced Dr. Marcellus A. Johnson, Jr., Chairman of the Virginia American Medical Education Foundation Committee, who gave a history of the Foundation and reported that the drive is now beginning to bear fruit, with $2,000 having been contributed thus far during 1952. Dr. Walter Martin pointed out that it was the responsibility of each physician to see that the drive to subsidize medical schools with federal funds be halted. Physicians should contribute to the Foundation and bear their own responsibility. Dr. Archer moved that Dr. Johnson prepare a resolution and present it to the House of Delegates for approval. It was further suggested that he give the House of Delegates a brief talk, explaining how this drive can be promoted on the local level. This passed unanimously.

Dr. Harry J. Warthen, Jr., Chairman of the Finance Committee, then presented the budget as proposed by the Committee.

Budget

	1952-3 Budget
EXECUTIVE OFFICE	
Salaries	$24,500.00
Telephone	1,500.00
Postage	1,000.00
Stationery and Supplies	900.00
Office Equipment	750.00
Building Maintenance	2,500.00
Convention expense	500.00
Council expense	425.00
Executive Assistant to A.M.A.	200.00
Delegates to A.M.A.	2,000.00
President's expense	1,000.00
Virginia Medical Monthly	18,000.00
Scientific Exhibits	2,000.00
Walter Reed Commission	250.00
Cancer Control	400.00
National Medical Emergency Service	150.00
Affiliated Agencies	60.00
Contingent Fund	500.00
Post-Graduate Medical Education	1,000.00
Building Repairs	500.00
Travel	2,000.00
Woman's Auxiliary	100.00

Social Security	375.00
Medical Service Brochure	400.00
Miscellaneous Health Service Committees	300.00
Miscellaneous	500.00
SPECIAL APPROPRIATIONS	
Virginia Council on Health and Medical Care	2,000.00
National Society of Medical Research	150.00
PUBLIC RELATIONS	
Conference	750.00
Radio and Press	400.00
Literature and Bulletins	1,000.00
	$66,110.00

Concerning the President's expense, it was felt that $600 was too limiting, and although Dr. Hamner did not wish it to be increased during his term, it was thought advisable to increase it to $1,000. The printing of an official directory was left to the Council by the Committee, and it was decided to discontinue the publication at least temporarily. There was some question as to whether or not duplication existed with reference to the directory of the State Board of Medical Examiners. It was pointed out that a $2,000 increase for the *Virginia Medical Monthly* was requested in order to take care of a back log of papers. Dr. Ozlin moved that the budget as presented be adopted. This passed unanimously.

A problem concerning hospital construction which has recently been brought to the attention of the Virginia Hospital Advisory Council was discussed by Dr. Warthen. It seems that a number of hospitals have been approved for federal funds under the Hill-Burton Act, and now find that only 33 per cent of the cost will be borne by the federal government instead of the 55 per cent which had been the assumption when campaigns to raise funds in local communities were conducted. It was felt that the state should make up the difference, and the Hospital Advisory Council wished to request the Governor to recommend that the present inadequate Federal aid be augmented by funds from the Commonwealth of Virginia at the next meeting of the Legislature to be held in December 1952, in order that the needed hospitals may be erected as originally planned at the earliest possible moment. Dr. Shanholtz explained that the State had put up 21 per cent in past years, but under the present budget, only 1 per cent could be allowed next year. Dr. Horsley suggested that a resolution be offered to the effect that the State Society request that the Governor return to the 21 per cent supplement and consider it at the coming legislative session. It was moved and seconded that Dr. Warthen prepare this resolution and present it to the House of Delegates for action. This passed unanimously.

Considered next was the matter of a replacement for Mr. Nash. Mr. Howard stated there have been several applicants for the job, and he would welcome any suggestions Council wished to offer. It was then moved and passed that the Executive Committee be empowered to work with Mr. Howard in the selection of a replacement for Mr. Nash.

The advisability of revising the Fee Schedule used in the Veterans Medical Home Care Program was discussed, and it was pointed out that there has been some dissension over it. A motion was made by Dr. Adams that the question be referred to the Medical Service Committee for necessary revision and preparation of another contract, and that it be referred back to the Council at its next meeting. This passed unanimously.

Concerning the unbound copies of Dr. Blanton's Medicine in Virginia which are stored in the basement and have been damaged by exposure, insects and movement, it was the consensus of Council that Dr. Blanton be consulted, and if there were no objections, steps be taken to dispose of the copies.

The question was raised regarding the policy of the *Virginia Medical Monthly* in accepting papers from nonmembers of the Society. After considerable discussion, it was moved that the columns of the *Monthly* be reserved for members and invited guests except where items of unusual value or exceptional circumstances are concerned, and which would be determined by the Publication Committee. This passed unanimously.

Dr. Hundley then discussed the Conference in Charleston on the United Mine Workers' Health and Welfare Fund. He stated that Virginia had not cooperated actively in the past, but the Fund has requested that a committee be appointed to work with that group. At the Conference the Virginia delegation prepared a good set of recommendations. These recommendations will be considered, and all of the UMW area advisers have been called into Washington to go over them, and will report back to the medical groups as to what can be done. Dr. Hundley felt that the liaison committee should be set up, to assist the United Mine Workers and their area representative in improving the standard of care in the mining areas, and to assist in molding the program into one that would avoid the dangers of a bureaucratic system of medicine. The motion was made that the appointment of a liaison committee to work with the United Mine Workers be approved. This passed unanimously.

On the subject of whether the State Society should endorse the World Medical Association, it was mentioned that Dr. Louis Bauer, President, A.M.A., last year explained the Association before our House of Delegates and recommended its support. A suggested resolution was read by Dr. Hundley whereby the House of Delegates of The Medical Society of Virginia would endorse and support the World Medical Association, and urge the members of the Society to become individual members of the United States Committee, Inc., of the World Medical Association, and thereby aid in the elevation of standards of medical education and medical care throughout the world. Dr. Archer moved that the resolution be brought before the House of Delegates. This passed unanimously.

A brochure on voluntary pre-payment health insurance, prepared by the Medical Service Committee, was next considered. Dr. Hundley stated that the brochure was being presented to the Council for their approval in order that it might be distributed to members of the Society

XUM

for their own information and reading room material. Estimates received regarding cost of printing were read. It was suggested that Mr. Duval's opinion be secured before proceeding with the printing. It was then moved that the brochure be approved and that distribution begin after receiving a favorable opinion from Mr. Duval. A sum of $400.00 was allocated for this purpose. This carried unanimously.

A resolution was then introduced which would invite members of the Student A.M.A. to meetings of the House of Delegates. This passed unanimously.

Considered next was a resolution of the Smyth County Medical Society, which requests the A.M.A. to contact the Department of Internal Revenue with regard to allowing expenses paid for post-graduate courses in medicine to be deducted for income tax purposes. The motion was made and carried that this resolution be approved by the Council and forwarded to the A.M.A.

Dr. Hundley then discussed the Santa Barbara Committee for Free Enterprise, which wished the support of the members of the Society in opposing socialist trends in this country. Since the medical profession and The Medical Society of Virginia in particular have already taken a stand on the side of free enterprise, it was believed wise to pass over the petition of the Committee at this time.

A report concerning the rental of office space in the headquarters building brought out the fact that only one room has been rented. Several non-medical applicants have been turned down at Mr. Duval's suggestion, since it was believed that our tax status might be affected. Dr. Archer moved that we abide by Mr. Duval's opinion and that our present policy be continued. This carried unanimously.

The question of whether the State Society should endorse the State's Medical Post-Graduate Association was next discussed. It was learned that many physicians interested in furthering graduate education had formed the Association with membership dues set at $10.00 per year. The Medical Society of Virginia has been invited to join. It was mentioned that there would be no conflict with the A.M.A. Department of Post-Graduate Education, but rather, a coordination of efforts. It was moved that the Society approve the Association and pay dues of $10.00 a year. This passed unanimously.

Courtesy membership in The Medical Society of Virginia for county health officers and staff members of medical schools was discussed, and it was deemed unwise to set up such a classification at this time.

Dr. Hundley then requested the Council to approve the appointment of a committee to work with the American Diabetes Association, as has been requested by them. The President would make the appointments. The motion was made and carried to approve such a committee.

In an effort to further streamline our bookkeeping, it was suggested that the special legislative fund, which was established in 1940, be abolished, and its funds turned back into the general fund. This would eliminate any duplication in the present bookkeeping system. The motion was made to transfer these funds to the general fund of the Society. This passed unanimously.

Dr. Horsley suggested that because of the many difficulties encountered in scheduling annual meetings, it might be well if the Society make arrangements at least two years in advance. There appeared to be no conflict in the Constitution and By-Laws, and the suggestion therefore appeared to be in order. Dr. Adams asked that dates be checked against the Jewish holidays inasmuch as the past two meetings have conflicted with their holiest season, and it would be preferable if there were no overlapping.

A survey of Tuberculosis in Virginia was reported by Dr. Hamner. It is sponsored by the State Health Department and the Virginia Tuberculosis Association, and is headed by Dr. Ennion S. Williams. The Society was requested to endorse the survey. The resolution of endorsement passed unanimously.

Approved JOHN T. T. HUNDLEY, *President*

FIFTY YEAR CLUB AWARDS

One of the especially pleasant duties of the first General Session is the awarding of certificates to the new members of the Fifty Year Club. These are conferred upon those who graduated fifty years ago, many of whom are still in active practice.

The awards were made on Monday evening, September 29, by the President, Dr. John T. T. Hundley when the following received this recognition:

Dr. Robert Eubank Booker, Lottsburg.
Dr. Thomas Henry Daniel, Charlottesville.
Dr. Clabe Baker Greear, Honaker.
Dr. Harry Weston Judd, Mineral.
Dr. Emlyn Harrison Marsteller, Jr., Manassas.
Dr. Henry Ward Randolph, Lilian.
Dr. Henry Cowles Rucker, Mattoax.
Dr. Harry Baylor Taylor, Norfolk.
Dr. John Thruston Thorton, Charlottesville.

The following should have been presented in 1951:
Dr. St. George Tucker Grinnan, Richmond.

COMMITTEES

The following Committees have been named to be in charge of the various activities of the Society during the year 1952-1953. Numbers after names in STANDING COMMITTEES indicate number of years to serve, these having been appointed for a definite term in accordance with the By-Laws.

Standing Committees

PUBLICATION: M. Pierce Rucker, M.D., *Chairman,* Richmond (2), Lewis H. Bosher, Jr., M.D., Richmond, Wyndham B. Blanton, M.D., Richmond (3), A. B. Hodges, M.D., Norfolk (1).

POSTGRADUATE MEDICAL EDUCATION: John T. T. Hundley, M.D., *Chairman,* Lynchburg; Mack I. Shanholtz, M.D., Richmond; Kinloch Nelson, M.D., Richmond; William Parson, M.D., Charlottesville; Mary E. Johnston, M.D., Tazewell; Joseph W. Chinn, M.D., Tappahannock.

ETHICS: H. H. Hurt, M.D., *Chairman,* Lynchburg (1); Malcolm H. Harris, M.D., West Point (2); H. S. Daniel, M.D., Louisa (3).

GRIEVANCE: W. C. Caudill, M.D., *Chairman,* Pearisburg (3); C. L. Harrell, M.D., Norfolk (4); Guy R. Fisher, M.D., Staunton (1); M. Pierce Rucker, M.D., Richmond (2); John T. T. Hundley, M.D., Lynchburg (5).

JUDICIAL: J. Morrison Hutcheson, M.D., *Chairman,* Richmond (1); Richard P. Bell, Jr., M.D., Staunton (2); J. D. Zylman, M.D., Falls Church (3).

LEGISLATIVE: J. D. Hagood, M.D., *Chairman,* Clover (1); W. C. Caudill, M.D., Pearisburg (1); Dean B. Cole, M.D., Richmond (1); Carrington Williams, M.D., Richmond (2); J. Edwin Wood, M.D., Charlottesville (3); Frank A. Farmer, M.D., Roanoke (3); M. S. Fitchett, M.D., Norfolk (2); Walter P. Adams, M.D., Norfolk (2); W. C. Elliott, Lebanon (3).

MEDICAL SERVICE: John O. Boyd, Jr., M.D., Chairman, Roanoke (1); Russell V. Buxton, M.D., Newport News (1); Harold W. Miller, M.D., Woodstock (1); William R. Pretlow, M.D., Warrenton (1); James P. Williams, M.D., Richlands (1); T. B. McCord, M.D., Fairfax (2); H. M. Frieden, M.D., Norfolk (2); John G. Graziani, M.D., Farmville (2); Charles L. Savage, M.D., Waynesboro (2); Snowden C. Hall, Jr., M.D., Danville (2).

MEMBERSHIP: W. R. Whitman, Sr., M.D., *Chairman,* Roanoke (1); George W. Leavell, M.D., Bristol (2); James A. Thweatt, M.D., Petersburg (3).

PUBLIC RELATIONS: James P. King, M.D., *Chairman,* Radford (2); Benjamin W. Rawles, Jr., M.D., Richmond (2); John W. Davis, M.D., Lynchburg (1); George A. Duncan, M.D., Norfolk (1); H. C. Bates, Jr., M.D., Arlington (3); Fred D. Maphis, M.D., Strasburg (3).

SCIENTIFIC EXHIBITS AND CLINICS: Eugene L. Lowenberg, M.D., *Chairman,* Norfolk (1); Hunter B. Frischkorn, Jr., M.D., Richmond (2); Allen Barker, M.D., Roanoke (3).

PROGRAM: Benjamin W. Rawles, Jr., M.D., *Chairman,* Richmond (2); Reverdy H. Jones, Jr., M.D., Roanoke (1); Ira L. Hancock, Jr., M.D., Creeds (3).

FINANCE: Harry J. Warthen, Jr., M.D., *Chairman,* Richmond (2); Walter B. Porter, M.D., Hillsville (1); Fletcher J. Wright, Jr., M.D., Petersburg (3).

Special Committees

CHILD HEALTH: McLemore L. Birdsong, M.D., *Chairman,* Charlottesville; Edwin L. Kendig, M.D., Richmond; Edwin A. Harper, M.D., Lynchburg; John M. Bishop, M.D., Roanoke; C. C. Powel, M.D., Harrisonburg; William E. Chapin, M.D., Richmond; Paul Hogg, M.D., Newport News.

ADVISORY TO WOMAN'S AUXILIARY: Waverly R. Payne, M.D., *Chairman,* Newport News; M. S. Andrews, M.D., Norfolk; Donald S. Daniel, M.D., Richmond.

MATERNAL HEALTH: H. Hudnall Ware, M.D., *Chairman,* Richmond; Edwin Rucker, M.D., Richmond; E. S. Groseclose, M.D., Lynchburg; Garrett Dalton, M.D., Radford; George S. Hurt, M.D., Roanoke; W. N. Thornton, Jr., M.D., Charlottesville; John R. Knight, M.D., Norfolk; W. L. McMann, M.D., Danville; L. L. Shamburger, M.D., Richmond; A. Tyree Finch, M.D., Farmville.

WALTER REED COMMISSION: H. A. Tabb, M.D., *Chairman,* Gloucester; Richard B. Bowles, M.D., Mathews; Clarence P. Jones, M.D., Newport News.

TO CONFER WITH STATE BOARD OF NURSE EXAMINERS: C. Bruce Morton, III, M.D., *Chairman,* Charlottesville; Russell V. Buxton, M.D., Newport News; John A. Shackelford, M.D., Martinsville; Eugene L. Lowenberg, M.D., Norfolk; Frank Johns, M.D., Richmond; Malcolm H. Harris, M.D., West Point; James M. Habel, M.D., Suffolk.

VENEREAL DISEASE CONTROL: James W. Love, M.D., *Chairman,* Alexandria; Harry Pariser, M.D., Norfolk; William H. Kaufman, M.D., Roanoke; W. Ross Southward, Jr., M.D., Richmond; Allen W. Pepple, M.D., Richmond.

TUBERCULOSIS: George A. Welchons, M.D., *Chairman,* Richmond; Wilkins J. Ozlin, M.D., South Hill; Everett C. Drash, M.D., Charlottesville; Carl W. LaFratta, M.D., Richmond; Charles W. Scott, M.D., Burkeville; Frank B. Stafford, M.D., Charlottesville.

MENTAL HYGIENE: David C. Wilson, M.D., *Chairman,* Charlottesville; Patrick H. Drewry, Jr., M.D., Richmond; James K. Morrow, M.D., Radford; John R. Saunders, M.D., Richmond; C. T. Wilfong, M.D., Richmond; Joseph R. Blalock, M.D., Marion; Edwin J. Palmer, M.D., Roanoke; Thomas Spessard, M.D., Norfolk; John P. Williams, M.D., Richmond; John A. Sims, M.D., Alexandria; Snowden C. Hall, M.D., Danville; Julian R. Beckwith, M.D., Clifton Forge; Thomas S. Edwards, M.D., Charlottesville; Thomas H. Anderson, M.D., Lawrenceville; Alexander G. Brown, III, M.D., Richmond; John B. McKee, M.D., Winchester; W. S. Hooten, M.D., Lynchburg; Landon E. Stubbs, M.D., Newport News.

CANCER: George Cooper, Jr., M.D., *Chairman,* Charlottesville; Arthur B. Gathright, M.D., Richmond; E. P. Lehman, M.D., Charlottesville; A. P. Jones, M.D., Roanoke; Joseph W. Houck, M.D., Lynchburg; Mason Romaine, M.D., Petersburg; Nelson Smith, M.D., Petersburg; John J. Giesen, M.D., Radford; Martin L. Dreyfuss, M.D., Clifton Forge; Charles H. Peterson, M.D., Roanoke; John R. Kight, M.D., Norfolk; A. C. Wyman, M.D., Alexandria; Frank D. Daniel, M.D., Charlottesville.

REHABILITATION: Roy M. Hoover, M.D., *Chairman,* Roanoke; Reno R. Porter, M.D., Richmond; George A. Duncan, M.D., Norfolk; J. R. Blalock, M.D., Marion; Edward E. Haddock, M.D., Richmond; Leroy Smith, M.D., Richmond; Frank B. Stafford, M.D., Charlottesville; A. L. Carson, Jr., M.D., Richmond; W. E. Dickerson, M.D., Danville; G. S. Fitz-Hugh, M.D., Charlottesville; Fletcher J. Wright, Jr., M.D., Petersburg; Charles L. Savage, M.D., Waynesboro.

CEREBRAL PALSY: O. Anderson Engh, M.D., *Chairman,* Alexandria; John A. Vann, M.D., Norfolk; Walter O. Klingman, M.D., Charlottesville; Louise F. Galvin, M.D., Richmond; Roy M. Hoover, M.D., Roanoke.

ADVISORY HEART COMMITTEE: J. Edwin Wood, M.D., *Chairman,* Charlottesville; Paul D. Camp, M.D., Richmond; R. B. Grinnan, M.D., Norfolk; John B. McKee, M.D., Winchester; Julian R. Beckwith, M.D., Clifton Forge; R. Earle Glendy, M.D., Roanoke; J. Franklin Waddill, M.D., Norfolk; Julian Q. Early, M.D., Bristol.

XUM

CONSERVATION OF HEARING: P. N. Pastore, M.D., *Chairman,* Richmond; Neil Callahan, M.D., Norfolk; James Gorman, M.D., Lynchburg; Fred Hamlin, M.D., Roanoke; Francis McGovern, M.D., Danville; Grant Preston, M.D., Harrisonburg; Fletcher Woodward, M.D., Charlottesville; J. H. Hopkins, M.D., Petersburg.

HOUSE COMMITTEE: Harry J. Warthen, Jr., M.D., *Chairman,* Richmond; Donald S. Daniel, M.D., Richmond; Fletcher J. Wright, Jr., M.D., Petersburg.

POLIO: Lee E. Sutton, Jr., M.D., *Chairman,* Richmond; R. B. Bowles, M.D., Mathews; E. A. Harper, M.D., Lynchburg; Robert C. Hood, M.D., Arlington; Roy M. Hoover, M.D., Roanoke; Albert S. McCown, M.D., Richmond.

CONSERVATION OF SIGHT: Rudolph C. Thomason, M.D., *Chairman,* Richmond; Parker H. Lee, Jr., M.D., Lynchburg; William F. Hatcher, M.D., Roanoke; F. O. Fay, M.D., Norfolk; Meade C. Edmunds, M.D., Petersburg.

LIAISON COMMITTEE TO CONFER WITH U. M. W. WELFARE FUND: John T. T. Hundley, M.D., *Chairman,* Lynchburg; Kinloch Nelson, M.D., Richmond; Mack I. Shanholtz, M.D., Richmond; John O. Boyd, Jr., M.D., Roanoke; Charles L. Savage, M.D., Waynesboro; James P. Williams, M.D., Richlands; Rufus P. Brittain, M.D., Tazewell.

COMMITTEE TO ASSIST AMERICAN DIABETES ASSOCIATION: William R. Jordan, M.D., *Chairman,* Richmond; Robert C. Crawford, M.D., Roanoke; W. Callier Salley, M.D., Norfolk; James G. Willis, M.D., Fredericksburg.

NATIONAL EMERGENCY MEDICAL SERVICE: Fletcher J. Wright, Jr., M.D., *Chairman,* Petersburg; Walter P. Adams, M.D., Norfolk; E. C. Drash, M.D., Charlottesville; R. P. Bell, Jr., M.D., Staunton; C. V. Amole, M.D., Alexandria; J. M. Hurt, M.D., Blackstone; Frank A. Farmer, M.D., Roanoke; Russell V. Buxton, M.D., Newport News; Kinloch Nelson, M.D., Richmond; Henry Bourne, M.D., Danville; Guy Richardson, M.D., Bristol; Mack I. Shanholtz, M.D., Richmond; James L. Hamner, M.D., Mannboro.

AMERICAN MEDICAL EDUCATION FOUNDATION: Marcellus A. Johnson, Jr., M.D., *Chairman,* Roanoke; Harry C. Bates, Jr., M.D., Arlington; L. H. Bracey, M.D., South Hill; Ira L. Hancock, M.D., Creeds; Malcolm H. Harris, M.D., West Point; Frederick D. Maphis, M.D., Strasburg; John R. Mapp, M.D., Nassawadox; Walter McMann, M.D., Danville; Richard C. Potter, M.D., Marion; Elam C. Toone, Jr., M.D., Richmond; T. S. Edwards, M.D., Charlottesville; James L. Chitwood, M.D., Pulaski; Lyddane Miller, M.D., Amherst; John H. Dellinger, M.D., Pennington Gap.

EXECUTIVE COMMITTEE OF COUNCIL: Guy W. Horsley, M.D., *Chairman,* Richmond; Vincent W. Archer, M.D., Charlottesville; Walter P. Adams, M.D., Norfolk.

IN MEMORIAM

MEMBERS OF THE MEDICAL SOCIETY OF VIRGINIA WHOSE DEATHS WERE REPORTED SINCE 1951 MEETING

The names of those members of The Medical Society of Virginia, whose deaths had been reported since the 1951 meeting, were read at a special ceremony at the General Meeting on September 29. Dr. Harry C. Bates, a member of the Membership Committee, read the names as follows:

Dr. Tremain Ernst Armstrong, Hopewell.
Dr. Joseph Clary Blanton, Richmond.
Dr. George Wythe Booth, Rocky Mount.
Dr. Matt Otey Burke, Richmond.
Dr. James Breckenridge Dalton, Richmond.
Dr. William Miller Dick, Hampton.
Dr. William Willcox Dunn, Richmond.
Dr. Gerald A. Ezekiel, Richmond.
Dr. William White Falkener, Hampton.
Dr. John B. Fisher, Midlothian.
Dr. Russell Landram Haden, Crozet.
Dr. Bryant Eugene Harrell, Norfolk.
Dr. Claiborne Turner Jones, Petersburg.
Dr. Ernest R. Martin, Newport News.
Dr. William Irvine Owens, Pulaski.
Dr. John Catron Phipps, Fries.
Dr. Ralph Andre Quick, Arlington.
Dr. Elton Aubrey Ratcliffe, Richmond.
Dr. John Muscoe Garnett Ryland, Richmond.
Dr. John Cary Sleet, Norfolk.
Dr. Willie Strother Snead, Newport News.
Dr. Edmund Pendleton Tompkins, Lexington.
Dr. William Edgar Waddell, Lexington.
Dr. Robert Klaus Waller, Richmond.
Dr. Carl Wilma White, Danville.
Dr. Joseph Lee Wright, Harrisonburg.

AUDITOR'S REPORT

October 1, 1951—September 30, 1952

OFFICERS AND COUNCILORS
THE MEDICAL SOCIETY OF VIRGINIA
RICHMOND, VIRGINIA

GENTLEMEN:

We have made an examination of the books and records of THE MEDICAL SOCIETY OF VIRGINIA, Richmond, Virginia, for the fiscal year ended September 30, 1952, and have prepared therefrom the Balance Sheet, Exhibit "A" and Statement of Income and Expenses, Exhibit "B". With the exceptions noted in the immediately following paragraph, our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

We did not verify the accounts receivable by direct confirmation with the debtors, nor did we verify the accounts payable.

Subject to the exceptions stated in the preceding paragraph, it is our opinion that the accompanying Balance Sheet, Exhibit "A", and Statement of Income and Expenses, Exhibit "B", prepared on the cash receipts and disbursements basis, present fairly the financial condition of the Society at September 30, 1952, and the results of its operations for the year then ended in conformity with generally accepted principles of accounting, applied on a basis consistent with that of the preceding year.

Yours very truly,

MITCHELL, WIGGINS & SMITH

By R. E. WIGGINS

Certified Public Accountant

Financial Condition

The financial condition of the Society at September 30, 1952, is shown in the Balance Sheet, Exhibit "A", on the accrual basis. A summary thereof is presented below in comparison with the financial condition at September 30, 1951:

ASSETS	9-30-52	9-30-51
Cash	$ 47,717.14	$ 40,901.62
Accounts receivable	2,322.48	2,505.47
Investments—United States Bonds	33,341.00	32,373.00
Fixed assets	43,061.10	43,061.10
TOTAL—ALL FUNDS	$126,441.72	$118,841.19
LIABILITIES, SURPLUS AND FUND BALANCE		
Liabilities:		
Accounts payable	$ 1,216.06	$ 1,686.95
Surplus:		
General Fund	82,164.56	74,093.14
Fund Balance:		
Plant Fund	43,061.10	43,061.10
TOTAL—ALL FUNDS	$126,441.72	$118,841.19

Analyses and explanation of the more important balance sheet items follow:

CASH—$47,717.14

All recorded cash receipts were accounted for by deposits in the banks, and disbursements were supported by properly signed and endorsed paid checks. Balances on deposit at September 30, 1952 were confirmed by direct correspondence with the banks as follows:

First and Merchants National Bank—Checking Account	$32,578.47
First and Merchants National Bank—Savings accounts (2)	6,735.49
The Bank of Virginia—Savings account	7,400.43
Southern Bank and Trust Company—Savings account	1,002.75
TOTAL	$47,717.14

INVESTMENTS—$33,341.00

Investments, consisting of United States Savings Bonds, were verified by inspection of the securities held in the safe deposit box at First and Merchants National Bank, Richmond, Virginia. They are shown in the Balance Sheet at their current redemption value. Details of investments are shown in Schedule 1.

FIXED ASSETS—$43,061.10

Details of the fixed assets carried in the Plant Fund are shown in Schedule 2. No indebtedness against these assets was disclosed by the records.

Operations

The income and expenses for the fiscal year ended September 30, 1952 are shown in Exhibit "B", prepared on the cash receipts and disbursements basis. A summary of income and expenses in comparison with that of the preceding year is presented as follows:

	FISCAL YEAR ENDED 9-30-52	9-30-51
INCOME		
Membership dues	$43,470.10	$43,701.78
Medical monthly publication	18,122.56	17,678.97
Commercial exhibits and convention	2,030.61	4,568.54
Other income	662.79	816.94
TOTAL	$64,286.06	$66,766.23
EXPENSES		
Executive office	$56,348.70	$87,527.82
Public relations department	1,130.64	823.24
TOTAL	$57,479.34	$88,351.06
INCOME OVER (UNDER) EXPENDITURES	$ 6,806.72	($21,584.83)

Included in expenditures of the executive office for the fiscal year ended September 30, 1951 is the purchase of office building and equipment totaling $35,367.00. For the current year, there were no charges for capital expenditures.

In General

During September 1952, the convening members of the Society approved a resolution to transfer all assets of the Legislative Committee-Special Fund to the General Fund, therefore, the activity in that fund for the year ended September 30, 1952 has been combined with the results of operations of the General Fund.

Insurance in force at September 30, 1952 determined from policies on file was as listed below:

FIRE	
Office furniture and fixtures	$ 6,000.00
Building—1105 West Franklin Street, Richmond, Virginia	26,000.00
Walter Reed House, Belroi, Virginia	2,000.00
Stock of books	1,000.00
SPRINKLER LEAKAGE	
Stock of books	1,000.00
LIABILITY—OWNER'S, LANDLORD'S, AND TENANT'S	
Bodily injury	$25,000.00 - $50,000.00
Property damage	5,000.00
FIDELITY BONDS	
Executive Secretary-Treasurer	5,000.00
Executive Assistant	5,000.00

XUM

Balance Sheet—September 30, 1952
Exhibit "A"
General Fund

ASSETS

CURRENT ASSETS		
Cash in banks		$47,717.14
Accounts receivable:		
Due from members—Estimated collectible value—1952 Dues—50 @ $25.00	$1,250.00	
Advertising—Virginia Medical Monthly	1,072.48	2,322.48
TOTAL CURRENT ASSETS		$50,039.62
INVESTMENTS		
United States Savings Bonds—Present value (Schedule 1)		33,341.00
		$83,380.62

LIABILITIES AND SURPLUS

CURRENT LIABILITIES		
Accounts payable:		
Preparation of Medical Journal —September 1952	$1,207.26	
Withholding tax	8.80	$ 1,216.06
Surplus:		
Unrestricted—Available for appropriation		82,164.56
		$83,380.62

PLANT FUND

LAND AND BUILDINGS—At cost (Schedule 2)		$35,061.10
OFFICE FURNITURE AND EQUIPMENT (Schedule 2)		
At cost	$ 951.65	
Estimated insurable value	7,048.35	8,000.00
		$43,061.10
FUND BALANCE		$43,061.10
		$43,061.10

Statement of Income and Expenses
For the Fiscal Year Ended September 30, 1952
Exhibit "B"

	ACTUAL	BUDGET
GROSS INCOME		
Membership dues	$43,470.10	
History of Medicine in Virginia	98.00	
Interest on savings accounts	168.78	
Commercial exhibits and conventions	2,030.61	
American Medical Association	396.01	
Virginia Medical Monthly:		
Advertising	$17,765.34	
Subscriptions—Non-members	357.22	18,122.56
TOTAL GROSS INCOME	$64,286.06	
EXPENSES		
Executive office:		
Salaries	$24,168.49	$24,800.00
Telephone and telegrams	1,377.14	1,500.00
Postage	743.55	1,000.00
Stationery and office supplies	809.67	900.00
Office equipment—Repairs and replacements	447.51	500.00
Building maintenance and repairs	2,114.99	3,500.00
Convention expenses	------	500.00
Council expenses	108.35	425.00
Delegates and executive assistant to A.M.A.	1,708.57	2,300.00
President's expense	594.32	600.00
Traveling expense	1,030.96	2,000.00
Preparation and distribution of Medical Journal	15,706.99	16,000.00
Scientific exhibits	1,762.72	1,600.00
Department of Clinical and Medical Education	679.49	1,000.00
Walter Reed Commission	48.20	500.00
Cancer control	426.00	400.00
Woman's auxiliary	50.00	100.00
Membership dues—Affiliated agencies	60.00	60.00
Miscellaneous committees:		
Maternal health	------	30.00
Medical service	32.00	------
Child welfare	34.40	25.00
President's contingent fund	------	500.00
National Emergency Medical Service Committee	------	150.00
Special appropriations:		
Virginia Council Health and Medical Care	2,000.00	2,000.00
National Society Medical Research	150.00	150.00
Social security taxes	336.42	375.00
Printing directory of members	120.50	500.00
Miscellaneous expenses	316.98	800.00
Legislative Committee	1,521.45	------
TOTAL EXECUTIVE OFFICE	$56,348.70	$62,215.00
Public Relations department:		
Conference expenses	$ 474.05	$ 1,000.00
Radio and press	25.20	500.00
Literature and bulletins	595.99	500.00
Education campaign	35.40	200.00
TOTAL PUBLIC RELATIONS DEPARTMENT	$ 1,130.64	$ 2,200.00
TOTAL EXPENSES	$57,479.34	$64,415.00
EXCESS OF INCOME OVER EXPENSES FOR THE YEAR	$ 6.806.72	

Fixed Assets
September 30, 1952
Schedule 2

PLANT FUND

LAND AND BUILDINGS—At cost		
Walter Reed House, Belroi, Virginia	$ 1,000.00	
Office building—1105 West Franklin Street, Richmond, Virginia	34,061.10	
TOTAL LAND AND BUILDINGS	$35,061.10	
OFFICE FURNITURE AND EQUIPMENT		
Estimated insurable value at October 1, 1950	$ 7,048.35	
Purchased during year ended September 30, 1951:		
Adding machine	$100.00	
Addressograph-Multigraph stand	127.50	
Protectograph—Check writer	110.30	
Typewriter	156.20	
File cabinets (2)	71.50	
Vacuum cleaner	69.95	
Desks and chairs (2)	316.20	951.65
TOTAL OFFICE FURNITURE AND EQUIPMENT		$ 8,000.00
TOTAL FIXED ASSETS		$43,061.10

Investment Bonds
September 30, 1952
Schedule 1

TYPE OF BONDS	SERIES	NO. BONDS	DATED	DUE	VALUE AT MATURITY	COST	VALUE AT 9-30-51	VALUE AT 9-30-52
U. S. Savings	F	10	2-1-43	2-1-55	$ 5,000.00	$ 3,700.00	$ 4,435.00	$ 4,570.00
U. S. Savings	F	17	12-1-43	12-1-55	8,500.00	6,290.00	7,318.50	7,539.50
U. S. Savings	F	1	1-1-44	1-1-56	500.00	370.00	430.50	443.50
U. S. Savings	F	3	2-1-44	2-1-56	1,500.00	1,110.00	1,291.50	1,330.50
U. S. Savings	F	2	6-1-44	6-1-56	1,000.00	740.00	848.00	874.00
U. S. Savings	F	2	12-1-44	12-1-56	1,000.00	740.00	835.00	861.00
U. S. Savings	F	2	5-1-45	5-1-57	1,000.00	740.00	822.00	848.00
U. S. Savings	F	7	11-1-45	11-1-57	7,000.00	5,180.00	5,663.00	5,845.00
U. S. Savings	F	1	3-1-46	3-1-58	500.00	370.00	404.50	417.50
U. S. Savings	F	10	3-1-46	3-1-58	10,000.00	7,400.00	8,090.00	8,350.00
U. S. Savings	F	6	10-1-49	10-1-61	3,000.00	2,220.00	2,235.00	2,262.00
TOTALS					$39,000.00	$28,860.00	$32,373.00	$33,341.00

We regret that circumstances beyond our control prevent our publishing the minutes of the House of Delegates in this issue. However, the court reporters have promised to let us have the minutes at an early date, and every effort will be made to include them in the next issue of the MONTHLY.

XUM

EDITORIAL

Robley Dunglison—1798-1869

First Professor of Medicine at Virginia

ONE of the most influential figures in the development of early American medical education, and yet one who is surprisingly little-known to the present generation, was Dr. Robley Dunglison. A prolific writer, a profound thinker, and a sound and scholarly physician, Dunglison left his mark on three distinguished schools of medicine, and was perhaps far ahead of his time in visualizing proper goals as well as methods in the education of the physician.

Robley Dunglison was born on January 4, 1798, in the "Lake Country", at Keswick, Cumberland, in the heart of England. Until he was seventeen years old, his education was directed toward making him a merchant, so that he might take charge of the extensive planting interests in the West Indies of his great uncle, Joseph Robley. However, the opportune death of this wealthy relative not only relieved him of the distress of further mercantile education, but by inheritance supplied him with sufficient funds so that he could satiate a previously suppressed desire for a medical career. He studied medicine under a village physician in Keswick, and continued his studies in London as assistant to the famed Dr. Charles Thomas Haden, of Sloane Street. Later he attended a course of lectures in Edinburgh, as well as one at the "Ecole de Medicine" and several private courses in Paris, after which he passed examinations of both the Royal College of Surgeons, and the Society of Apothecaries in London. He began the practice of his profession in that city in 1819, but apparently feeling the need of further education, he attended the University of Erlangen, in Bavaria, and graduated by "examination" in 1823, presenting a thesis on neuralgia. On his return to London, he devoted his attentions primarily to the practice of obstetrics. He was made "Physician Accoucheur" to the Eastern Dispensary, and in 1824 announced a course of lectures on "The Principles and Practice of Midwifery" for the following October.

Dunglison could never be accused of being idle, and during this period of developing practice and increasing professional reputation, he found time to translate and edit Larrey's "Essay on Moxa", Magendie's "Formulary of New Remedies", and Hooper's "Surgeon's Vade Mecum". He contributed numerous articles to journals of the time, including the London Medical Repository, the Medical Intelligencer, the Annals of Philosophy, the Quarterly Journal of Science and the Arts, the London Quarterly Review, the Eclectic Review, and the Universal Review, and published an original work entitled "Commentaries on the Diseases of the Stomach and Bowels of Children". In addition, before he departed from England at the age of 26, Dunglison had become a member of the Royal College of Surgeons, the Society of Apothecaries, the Hunterian Society, the Medical Society of London, the Linnaen Society of Paris, the Royal Society of Arts and Letters of Nancy, the Societe de Medicine of Paris, the Royal Academy of Marseilles, the Society of Pharmacy of Paris, the Physico-Medical Society of Erlangen, and the Academic Society of Medicine of Marseilles. All of these activities did not dissipate entirely his remarkable energy, and in October, 1824, he married Harriette Leadam, the daughter of a London medical practitioner. Shortly after this marriage, a certain restlessness and a desire to take part in the growth and development of the New World became apparent.

During the first quarter of the nineteenth century, Thomas Jefferson had been

waging a recurring battle with Virginia legislators to have the small Albemarle Academy, later called Central College, in Charlottesville, converted to a state university. Mr. Jefferson, third president of the United States, but who preferred to be remembered as "The Author of the Declaration of Independence, of the Statute of Virginia for Religious Freedom, and Father of the University of Virginia", did not by any means limit his interest to politics. He was a recognized zoologist and botanist, amateur astronomer, inventor and philosopher. He corresponded frequently on the subject of medicine with Benjamin Rush, and his influence on American medicine in general and Dr. Robley Dunglison in particular must be recognized.

Mr. Jefferson planned the University of Virginia in detail, no detail, whether physical, financial, administrative or curricular, escaping his attention. He determined to obtain at any cost a faculty of unquestioned capability, and in 1825 wrote, "You know that we have all from the beginning considered the high qualifications of our professors as the only means by which we could give to our institution splendor and pre-eminence over all its sister seminaries". In 1824, Francis Walker Gilmer sailed for England, empowered to secure suitable individuals for the vacancies in the faculty of the University. The chair of medicine apparently offered the greatest difficulty, but in 1825 Robley Dunglison was induced to accept this chair, or "settee", as it was characterized by Dr. Oliver Wendell Holmes, since it included the Professorships of Anatomy, Physiology, Surgery, Materia Medica, Pharmacy and the History of Medicine. Ostensibly, he was to be the only teacher of medicine, but, in actuality, the professor of natural history gave instruction in chemistry, botany and comparative anatomy. Fortunately, after his arrival in Virginia, Anatomy and Surgery were replaced by Medicine in his duties, since, as Gross states, he "could not bear the sight of blood".

Dr. Robley Dunglison arrived in Charlottesville in February, 1825, after an arduous voyage of four months, accompanied by his young wife. At this time he was characterized as "a very intelligent and laborious gentleman", and "a fine looking and agreeable young man". With his customary industry he plunged into his new duties of educating some twenty medical students, as well as continuing his literary endeavors. The medical school was a source of theoretical knowledge only, since there were no patients, no hospital, and no practical clinical instruction. Jefferson recognized the importance of the latter, and at one time considered removal of the medical part of the University to Norfolk, where such might be available, but forebore in the hope that clinical facilities would develop later in Charlottesville, meanwhile offering the medical students a chance to "finish" at the better clinical facilities in Boston, New York, or Philadelphia. Mr. Jefferson was somewhat of a therapeutic nihilist, and Dr. Dunglison stated in his memoranda that "Mr. Jefferson was considered to have but little faith in physic, and has often told me that he would rather trust to the unaided or rather uninterfered with efforts of nature than to physicians in general. 'It is not', he was wont to observe, 'to physic that I object so much as to physicians' ". However, Jefferson knew more medicine than the average physician of his day, and was responsible for introducing Jennerian vaccination in Virginia, having experimented on his family with the cowpox. Old Mr. Jefferson was favorably impressed with young Dr. Dunglison, and engaged him as his physician, "submitting to his regimen without murmuring at suffering inflicted upon him for remedial purposes".

Under the guidance of Dunglison, the medical department of the University took shape and grew. Dunglison became a great friend of both Jefferson, and his near

XUM

neighbor, James Madison, and was often grateful for their advice and counsel. The Professor of Medicine was given permission to practice within the confines of the University, and later he was allowed to do consultation work. Funds were allocated for an anatomical theatre, and approximately 300 medical volumes were added to the library by Jefferson. In 1826, a dispensary attached to the school of medicine was established, in charge of the professor, who dispensed medical advice and treatment to all in need. This service was free to the poor, but a fee of fifty cents was required from others. Medical students were required to attend these clinics, and were enjoined "to examine the patients by the pulse, and other indications of disease, to ask them such questions as the Professor shall think pertinent and shall permit, and to acquire a practical knowledge of the process of Pharmacy by taking a part in the preparation of medicines". Professor Dunglison was a fluent lecturer, able to hold his students' attention in the discussion of dry details, as well as a rapid writer, rapid to the point of illegibility. He was highly regarded by students and colleagues alike, and his literary efforts shortly resulted in spreading his fame abroad. In 1832, his "Human Physiology", previously rejected by Philadelphia publishers, was printed in Boston; this became a standard work for students and went through eight editions. Shortly afterward, the profound "Medical Dictionary" was published and in 1897 this had had 23 editions. The great surgeon Samuel D. Gross, stated that "What Haller's great work accomplished for surgery in the eighteenth century, Dunglison accomplished for it in America in the nineteenth". During his nine years in Virginia he also published works entitled "Elements of Hygiene", "General Therapeutics", and a "Syllabus of Lectures on Medical Jurisprudence".

In 1834, Dunglison was elected Professor of Materia Medica and Medical Jurisprudence at the University of Maryland, but after a year in Baltimore, he accepted the appointment to the Professorship of the Institutes of Medicine at the Jefferson Medical College in Philadelphia. Shortly thereafter, dissension among the faculty resulted in a complete reorganization, in which Dunglison was instrumental, so that he became associated on the faculty with such men as Joseph Pancoast, J. K. Mitchell, R. M. Huston, Thomas Dent Mutter, Charles D. Meigs, and later S. D. Gross. During the reorganization, Dunglison displayed surprising administrative talents and for many years served as Dean at Jefferson. According to Dickinson, the rise and progress of that institution were in large measure due to the energy, reputation and leadership of Dunglison. His writing continued and he published textbooks and original articles too numerous to mention here. He was an enthusiastic participant at medical meetings and at the close of his career it was said that he belonged to more than one hundred different organizations. His outside activities were varied, and he loved music, being for some time President of the Musical Fund. He was a member of the Sydenham Society of London, the American Philosophical Society, and the Pennsylvania Institution for the Instruction of the Blind. He developed a remarkable interest in the problems of the blind, and, with William Chapin, issued a three-volume dictionary for the blind.

For the latter half of his life, Professor Dunglison was an invalid. Gout made him lame, cardiac disease made him dyspneic, and gallbladder disease gave him recurrent episodes of excruciating pain. Yet, despite all these infirmities, his many and varied activities continued; if he could not stand to lecture he would sit, and would often write long articles while propped up high on pillows. Finally, in 1868, the development of peripheral edema reached a point forcing him to retire, despite continued

intellectual vigor, and he died in 1869. His autopsy was described as a veritable pathological museum.

Robley Dunglison will be remembered, not as a scientist who contributed greatly to the realm of medical knowledge, but as a great physician and teacher, whose amazing vigor, coupled with his organizational and editorial ability, resulted in progressive trends in medical education during the infancy of the latter in this country.

HENRY W. MAYO, JR., M.D.

EDITOR'S NOTE: A paper presented at the Robert Wilson Medical History Club at Charleston, South Carolina, May 1, 1952.

Dr. Mayo is an alumnus of the University of Virginia School of Medicine, and is now connected with the Medical College of South Carolina.

SOCIETIES

Southwestern Virginia Medical Society.

The annual Fall meeting of the Society was held at the Governor Tyler Hotel in Radford, September 25, under the presidency of Dr. A. F. Giesen. The program in the afternoon, included the following papers:

Multiple Myeloma by Dr. Walter S. Schiff, Marion

Panel: Public Relations on the Local Level, Dr. James P. King, Radford;

The Individual Approach, Robert I. Howard of The Medical Society of Virginia, Richmond;

The Committee Approach, Dr. M. A. Johnson, Jr., Roanoke;

Working with Other Groups, Dr. Fred D. White, Roanoke; and

Good Press-Radio Relations, Dr. Edward E. Haddock, Richmond.

At the business session, Dr. Frank A. Farmer, Roanoke, was elected president; Dr. Richard C. Potter, Marion, vice-president; and Dr. James L. Chitwood, Pulaski, secretary-treasurer. Hotel Lincoln at Marion was selected for the Spring meeting, the date to be named later.

Following a social hour and banquet, Dr. R. B. Robbins, Camden, Arkansas, president of the American Academy of General Practice, gave an address on "Socio-Economic Aspects of Medicine".

Northern Neck Medical Association.

Dr. Paul C. Pearson, Warsaw, became president of this Association at its meeting on October 23, succeeding Dr. Melvin Lamberth of Kilmarnock. Also elected at this meeting for the coming year were: Dr. Harold E. Sisson of Warsaw as president-elect, and Dr. James Motley Booker of Lottsburg as vice-president. Dr. William H. Matthews of White Stone is secretary-treasurer.

Lynchburg Academy of Medicine.

The regular monthly meeting of the Academy was held October 13th at the Lynchburg General Hospital. Dr. Alto E. Feller of the University of Virginia spoke on, "Common Respiratory Diseases".

Two new members were elected to full membership in the Academy.

The Midtidewater Medical Society

Met on October 28th at Gloucester, and elected Dr. W. H. Hosfield of West Point as president for 1953 and re-elected Dr. M. H. Harris, also of West Point, as secretary. Drs. Carl Broaddus and W. H. Stout were admitted to membership.

An excellent panel discussion of Gastro-intestinal Hemorrhage was conducted by Dr. Chas. M. Caravati, moderator, assisted by Drs. Donald S. Daniel and D. D. Talley, III. The speakers were from Richmond.

The next meeting of the society will be held at West Point on the fourth Tuesday in January 1953.

The Fairfax County Medical Society

Met on October 14th, at the home of Dr. Robert Muilenberg in Falls Church.

The annual dinner to be held in November was discussed, and it was decided to hold the affair at the Belle Haven Country Club, on November 26, if possible.

The new president, Dr. Claude Cooper, announced

XUM

a list of committees and their chairmen as follows:

Program ---------- Dr. Gerard J. Inguagiato
Liaison with the Community Chest & Membership ---------- Dr. Robert Hunt
Publicity & Public Relations ---------- Dr. Alice Kiessling
Instructive Visiting Nurse Association -- Dr. T. B. McCord
Cancer Detection ---------- Dr. J. Zylman
Grievance ---------- Dr. E. Waring
Civil Defense ---------- Dr. Thomas Haggerty
Public Health and Schools—The Health Officer ---------- Dr. Kennedy

The next meeting will be the annual dinner meeting, which is expected to be held at the Belle Haven Country Club, and which will include wives of members and guests.

ALICE H. KIESSLING, M.D.

Roanoke Academy of Medicine.

At the meeting of the Academy on November 3, Dr. J. E. Gardner presiding, papers were presented as follows:

The Differential Diagnosis of Vertigo by Dr. J. Lawson Cabaniss;

The Mechanisms and Management of Anemia by Dr. C. L. Crockett, Jr.; and a motion picture film, "Without Fear", presented and discussed by Dr. James P. King of Radford. It was produced by the International Machinists Union and reveals a vituperative attack on the medical profession.

Richmond Academy of Medicine.

At the meeting of the Academy on November 11, papers were presented by Dr. Jack Freund on "The Role of Radiosodium in Evaluating Therapy in Peripheral Vascular Disease", and by Drs. William Harris, Jr., and George W. Fishburn on "Subacute Staphylococcus Aureus Endocarditis: Recovery Following Combined Antibiotic Therapy". Dr. Guy W. Horsley presided.

Drs. Wyndham B. Blanton, Jr., Frank Blanton and Herbert W. Park were elected to membership.

NEWS

Virginia Obstetrical and Gynecological Society.

Fifty-one members and guests were present at the September 30 luncheon and business meeting in the Commonwealth Club. This unusually large turn-out was undoubtedly due to the excellent scientific program which took place afterwards in the Jefferson Hotel. Dr. Gordon Douglas of New York City, our distinguished guest speaker, spoke on the indications for hysterectomy to a large audience consisting not only of our society but the general membership of the Medical Society of Virginia as well. His address was followed by an Obstetrical and Gynecological Symposium which was participated in by Dr. Douglas and our own Doctors Kight, Payne, Spalding, Thornton, and Ware.

At the business meeting an important amendment to the By-Laws was moved and carried. Article VI was amended to read as follows: Delinquency in dues or attendance of meetings in two successive years shall be considered cause for automatic expulsion from the society unless excuse, satisfactory to the society, is made in person or by letter. Members thus expelled must, in order to be reinstated, go through the same process of application as any new member.

Seven applicants were voted into membership in the society.

Dr. Chester L. Riley of Winchester was elected to the office of President-Elect. Dr. Chester D. Bradley of Newport News was re-elected to the office of Secretary-Treasurer. Dr. Spalding of Richmond, retiring President, relinquished the office to Dr. John R. Kight of Norfolk.

Virginia Diabetes Association.

At the annual meeting of the Association held at the time of the State Meeting in Richmond, the following officers were elected for the coming year: President, Dr. C. D. Nofsinger, Roanoke; Vice-Presidents, Dr. Robert Bailey, Jr., Richmond, and Dr. Tom Edwards, Charlottesville; Secretary-Treasurer, Dr. William A. Read, Newport News.

The Clinical Meeting of the Society was held on the afternoon of November 7th at the auditorium of the Medical College of Virginia. There were seven papers and the guest speaker was Dr. Alexander Marble of Boston. Also at this meeting of the Society it was decided to sponsor a program on diabetes to be given on the Sunday preceding the meeting of the State Academy of General Practice. This pro-

gram will be put on by the Virginia Diabetes Association on May 6, 1953. It was felt by the Society that if this meeting was successful it should be made an annual affair as in this way the purpose of the Society which is primarily educational would be most apt to be fulfilled.

All members of the State Society are cordially invited to become members of the Virginia Diabetes Association. They need only to write to the Secretary who will place them on the roll. Initiation fee is five dollars and annual dues three dollars.

The Virginia Society for Pathology and Laboratory Medicine

Held its annual meeting on October 1, at the Jefferson Hotel in Richmond. The following officers for the coming year were elected: President, Dr. M. L. Dreyfuss, Clifton Forge; Vice-President, Dr. Arnold J. Rawson, Norfolk; Secretary-Treasurer, Dr. W. D. Dolan, Arlington.

Among the many matters discussed was a plan to establish a Committee on Pathology within the structure of the State Medical Society which would serve as an information and advisory committee on matters pertaining to Pathology.

It was decided to continue and expand the program of evaluation of laboratory techniques which has been underway for more than a year. This self-evaluation has as its purpose uniformity and increased accuracy in results of tests performed in laboratories supervised by members of the Society. It was also decided to conduct a scientific meeting during the coming year jointly with the Virginia Society of Medical Technologists. This meeting will take place in Richmond on January 17, 1953.

The Society joined with the State Health Department and the Department of Legal Medicine, Medical College of Virginia in sponsoring the Medico-Legal Symposium held in conjunction with the annual meeting of the Medical Society of Virginia.

The Virginia Section, American College of Physicians,

Held a business luncheon meeting at the Rotunda Club, Jefferson Hotel, Richmond, September 30. In the election of officers, Dr. John B. McKee of Winchester was named chairman and Dr. James F. Waddill of Norfolk was re-elected secretary-treasurer. Seventy-five members were present. Dr. Charles M. Caravati of Richmond is governor of the College for Virginia.

Virginia Urological Society.

At the luncheon meeting of this Society at the Hotel John Marshall on September 30, the following officers were elected for the ensuing year: President, Dr. Warren W. Koontz of Lynchburg; vice-president, Dr. T. B. Washington of Richmond; and secretary-treasurer (re-elected), Dr. Wm. Russell Jones, Jr., also of Richmond.

Virginia Orthopedic Society.

At a luncheon meeting of this Society on September 30, Dr. Prentice Kinser, Jr., of Danville was elected president; Dr. Bernard Packer of Richmond was named vice-president; and Dr. Allen M. Ferry of Arlington was re-elected secretary-treasurer.

The Virginia Pediatric Society held a luncheon meeting on the 30th of September, but this was purely social and no business was transacted.

The Virginia Society of Anesthesiologists also had a "get together" luncheon the same day, but will not hold their election of officers until their annual meeting in March.

A. Murat Willis Oration.

Dr. Paul Douglas White, cardiologist of Boston, delivered the first annual A. Murat Willis Oration at the Richmond Academy of Medicine Building, October 29. The oration was established in memory of Dr. A. Murat Willis, a prominent Richmond surgeon who was also instrumental in establishing several independent hospitals in the State. Dr. White's subject was "Personal Experiences in Cardiology". Dr. White came to Richmond upon the invitation of the Johnston-Willis Ex-House Staff Association of which Dr. Harry L. Denoon of Nassawadox is president. Dr. White was the honor guest at the group's annual dinner meeting at the Commonwealth Club.

Lieutenant John M. Stoneburner,

Son of Dr. and Mrs. L. T. Stoneburner, Jr. of Richmond, has been awarded the Bronze Star Medal for outstanding valor in Korea. He earned the decoration during the 1952 Summer-Fall offensive. Lt. Stoneburner, who is a graduate of the Medical College of Virginia, is presently assigned to the station hospital at Fort Monroe, Va.

XUM

Dr. F. J. Spencer

Has resigned from the Giles-Montgomery-Radford Health District, effective September 19. No replacement has been made as yet.

Dr. Porter Honored.

Dr. William Branch Porter, professor of medicine since 1927 and chairman of the Department of Medicine at the Medical College of Virginia, was presented a silver stethoscope head at a meeting on October 23, which marked the formation of a society named in his honor. The Society is named the William Branch Porter Society and was formed by thirty-four of his former residents who presented him with the engraved stethoscope head and a scroll. The presentation was made by Dr. Harry Walker.

Dr. Harold W. Kinderman,

Who lived for a time in the White Stone-Kilmarnock section upon his return from a job in Africa after his retirement from the Army, has been appointed chief medical director of the State Penitentiary system, succeeding Dr. Herman L. Whitmore, deceased. He entered upon his new duties the latter part of October.

Dr. Plunkett Appointed Secretary of Committee on Mental Health.

Dr. Richard J. Plunkett, of Winnetka, has been appointed secretary of the newly established Committee on Mental Health of the American Medical Association. The appointment was made by the association's Board of Trustees. Dr. Plunkett has been a member of the A.M.A.'s editorial staff for the last five years.

The committee, established in March, 1952, was formed primarily to consider problems that exist today in psychiatry and mental health.

Dr. Leo H. Bartemeier, Detroit, is chairman of the committee.

A Tumor Clinic

Has been organized and approved at the Louise Obici Memorial Hospital, Suffolk. The first meeting was held at 4:30 P.M. on Tuesday, November 25th in the X-ray Department of that hospital, and subsequent meetings will be held at the same time on the second and fourth Tuesdays of each month. Any patient, indigent or otherwise, may be referred to the clinic. All patients will be sent back to the referring physician with a summary of the findings and recommendations. The Clinic as such will not undertake specific therapy.

Correspondence may be addressed to Tumor Clinic, Louise Obici Memorial Hospital, Suffolk, Virginia.

Dr. Rudolph C. Thomason,

Richmond, has been elected president of the Hermitage Country Club for the succeeding year.

Dr. W. A. Pennington,

Buckingham, was elected president of the Virginia Wildlife Federation at the new organization's first convention, the latter part of October.

"Let Your Light So Shine."

This year's Christmas Seal with its candle is a symbol of Hope which can be lighted only if you buy and use Christmas Seals!

Tuberculosis associations throughout Virginia will ask you to support the campaign in your own community. As a physician you will be able to render a service far beyond your usual monetary contribution if you will impress upon your patients, their families and your neighbors, the fact that tuberculosis is still the greatest single public health problem which we face today. Dispel the prevalent idea that TB is on the way out. The so-called miracle drugs have not performed miracles and the need for more hospital beds, chest surgery and other scientific aids has been intensified in the plan for the eradication of this disease.

Your local tuberculosis association may be a well established organization which is carrying on a well balanced program of health education, case-finding, rehabilitation and research or it may be a small struggling committee—in either case it needs your support. Much has been accomplished, but there is a great deal to be done. So long as we have a reservoir of tuberculosis infection which produces 115,000 active cases each year in the United States, we cannot afford to rest on our laurels.

Let your light so shine among men that it will be directed upon the truth about tuberculosis in Virginia.

Pan American Medical Association.

The twenty-fifth Anniversary Cruise-Congress will be held aboard the S.S. "Nieuw Amsterdam", January 7-19, 1953. The itinerary will include leaving New York City, January 7, and visiting at Port-au-Prince, Haiti, at Cartagena, Columbia, Cristobal,

XUM

Panama, and Havana. The American Express Travel Company will handle all reservations subject to the approval of the Association. The registration fee is $25 for each passenger, payable to the Pan American Association at 745 Fifth Avenue, New York 22, N. Y. Rates for the twelve days are $300 up, no U.S. tax. This is the ultimate in cruising luxury and the scientific discussions will be of widespread interest.

The American College of Chest Physicians

Will hold its nineteenth annual meeting at the Hotel New Yorker, New York City, May 28-31, 1953.

Physicians who wish to present papers at the meeting should submit titles and abstracts to Dr. Arthur M. Olsen, Chairman, Committee on Scientific Program, American College of Chest Physicians, Mayo Clinic, Rochester, Minnesota.

The American College of Physicians

Will hold its Annual Regional Meeting for the State of Virginia at the Veterans Administration Hospital, Hampton, Va., on February 26, 1953. Dr. Charles M. Caravati, of Richmond, is the College Governor for Virginia and Dr. John McKee, of Winchester, is the Chairman of the Virginia group.

Duke Medical Symposium.

The fifteenth annual symposium will be held at Page Auditorium on the West Campus of Duke University at Durham, N. C., on December 9 and 10. Advances in therapy will be discussed by authorities who are nationally known in their fields. Virginia doctors are invited to attend.

Blood Needed for Our Fighting Men.

No longer is the man in battle the only fighting man to be shedding blood in defense of his country. Now, every one can make a direct contribution to the job of defeating the enemy and saving the lives of combat soldiers by donating blood for the Armed Forces. Find out when the Bloodmobile is to visit your city and arrange to donate a pint of blood to the cause.

Laboratory Refresher Training Courses

Will be given by the Communicable Disease Center from one to four weeks during the year January 1—December 31, 1953. Information and application forms should be requested from Laboratory Training Services, Communicable Disease Center, U. S. Public Health Service, P. O. Box 185, Chamblee, Georgia.

GP To Be Congratulated.

GP was among the outstanding magazines to be honored by the American Institute of Graphic Arts at its annual exhibition this Fall and was presented with a certificate for its excellence in graphic presentation.

Medical Staff Conferences at Winchester Memorial Hospital.

Two conferences—October and November—have already been held at the Winchester Memorial Hospital. Resuming them again in January, they will be as follows:

Wednesday, January 14, 1953—"Cervico-Brachial Pain"—J. Hamilton Allen, M.D., Professor of Orthopedic Surgery, University of Virginia.

Wednesday, February 18, 1953—"Symposium on the Toxemias of Pregnancy"
R. L. Hughes, M.D., Winchester
Arthur L. Wilson, M.D., Winchester
John C. Hortenstine, M.D., Winchester
William P. McGuire, M.D., Winchester

Wednesday, March 18, 1953—"Intestinal Obstruction"—Carrington Williams, M.D., Richmond

Wednesday, April 22, 1953—*The Annual Hunter H. McGuire Lecture*
"The Circulation in Pregnancy"—C. Sidney Burwell, M.D., Research Professor of Clinical Medicine, Harvard University, Boston

Wednesday, May 20, 1953—Clinical Pathological Conference
George H. Murphy, M.D., Winchester

All physicians are invited to attend these conferences.

XUM

OBITUARIES

Dr. Linwood D. Keyser,

Who died on October 12, 1952, was one of the prominent physicians and surgeons of Virginia. A graduate of the University of Virginia, Johns Hopkins University and the Mayo Foundation, he was one of the founders of the Virginia Urological Society.

He did a great deal of research on the formation and dissolution of urinary calculi and was a leader in this field. He was president of the Roanoke Academy of Medicine in 1944, he was also a member of the University Academy of Science and the American Association For The Advancement of Science. He was prominently associated with the Memorial and Crippled Children's Hospital for many years. The Roanoke Academy of Medicine feels it has lost an outstanding physician and surgeon of this community.

THEREFORE, BE IT RESOLVED that the members of the Roanoke Academy of Medicine feel the community and medical fraternity has suffered an irreparable loss in the death of this esteemed and distinguished member.

BE IT FURTHER RESOLVED that a copy of this Resolution be sent to his nearest relatives and the VIRGINIA MEDICAL MONTHLY.

W. W. S. BUTLER
CHARLES M. IRVIN
W. L. POWELL, *Chairman*

Dr. Percy B. Stokes.

The Norfolk County Medical Society views with deep regret the passing of a friend and associate, Dr. Percy B. Stokes. A native of Ruffin, North Carolina, he died on September 6th at Blowing Rock, that State.

He received his pre-medical education at the University of North Carolina and completed his medical education at the Medical College of Virginia, practiced in Canada and King's Mountain, North Carolina. Early in the 1930's he moved to New York City where he was a resident at King's County Hospital in Eye, Ear, Nose and Throat. In 1934, with Dr. C. M. McCoy, he established the McCoy-Stokes Hospital, Norfolk, where he continued to practice his specialty.

BE IT RESOLVED the Norfolk County Medical Society extends its sincere sympathy to his widow Mrs. Mary Lyall Stokes and two sons.

And BE IT FURTHER RESOLVED that these sentiments be spread upon the minutes of the Norfolk County Medical Society and that a copy be sent his family.

(Signed) BROCK D. JONES, JR., *Chairman*
C. M. MCCOY
W. R. TYSON

Dr. St. George Tucker Grinnan,

One of Richmond's oldest physicians, was injured fatally and died November 10, after having been struck by a truck near his home. He was 82 years of age and a graduate of the University of Virginia in 1901. He shortly afterwards located in Richmond where he practiced until his retirement several years ago. He served as professor of pediatrics at the Medical College of Virginia for twenty-three years, and was later named professor emeritus of pediatrics. He also served for a time as chief pediatrician at the Crippled Children's Hospital. He was a life member of his State and several other organizations.

He is survived by three sons and two daughters.

Dr. Richard Mason,

The Plains, died September 23, after an illness of three years. He was 84 years of age and graduated from the University of the South, Sewanee, Tenn., in 1898, and shortly thereafter returned to his former home at Marshall. In two years he located at The Plains where he continued his practice until forced to retire. For many terms he was president of the Fauquier County Medical Society, and was for sometime president and chairman of the Board of the Physicians' Hospital. He was a member of The Medical Society of Virginia and a member of its Fifty Year Club.

Dr. Achilles L. Tynes,

Prominent physician of Staunton, died October 26, after having been in bad health for some years. He was seventy-nine years of age and had graduated from the former University College of Medicine, Richmond, in 1898. He located first in Augusta County, moving to Staunton in 1908, where he practiced until his retirement. He was for sometime city health officer. He had long been a member of The Medical Society of Virginia of which he was also a life member. His wife and several children survive him.

Dr. J. Gordon Boisseau,

For more than twenty-five years a member of The Medical Society of Virginia, died at his home in Richmond, November 8, at the age of sixty-three. He was a graduate of the Medical College of Virginia in 1914. During World War I he served with the rank of major in the Field Artillery, was a former commander of the American Legion Post 151, a Mason and Shriner. He is survived by his wife, mother and several brothers and a sister.

Dr. Robert Page Cooke,

One of the last survivors of Walter Reed's famous yellow fever experiments in Cuba, died at his home near Lexington, October 27. While serving as a surgeon in the American Army, he volunteered to take part in Dr. Reed's research. For his part in the experiments, Dr. Cooke received a special medal awarded by Congress. After his return from the Army, he engaged in private practice and later in health work in Virginia, retiring five years ago. He was a graduate of the University of Virginia in the class of 1897, and was an honorary and life member of The Medical Society of Virginia. His wife and two daughters survive him.

An appreciation of Dr. Cooke appears in the editorial pages of the September 1952 *Monthly.*

Dr. Alvah L. Herring,

Well known surgeon of Richmond and until recently president of Grace Hospital, this city, died October 24, after being in bad health for a couple of years. He was sixty-six years of age and graduated from the former University College of Medicine in Richmond in 1910. He joined The Medical Society of Virginia the following year and was also identified with several other medical organizations. During World War I, he served overseas with the McGuire Unit Base Hospital. Upon returning, he practiced surgery and became president of Grace Hospital in 1929, which position he held until two years ago. His wife and a son, Dr. A. L. Herring, Jr., and large family connection survive him.

Dr. William Cloud Harman,

Of Dolphin, died at a Richmond Hospital, October 13, as the result of injuries received when he was struck by an automobile near his home. He was seventy-seven years of age and a graduate of the Maryland Medical College in 1913. He had practiced in Dolphin since 1915 and been a member of The Medical Society of Virginia for thirty-seven years. He was for many years an interested attendant at the annual sessions. He is survived by his wife and two daughters.

Dr. John B. Bullard,

Richmond physician, died October 29. He graduated from the North Carolina Medical College in 1917, and had been a general practitioner in Richmond for more than thirty years. Shortly after graduation, Dr. Bullard entered the army in World War I and was commissioned a captain. Following the war, he located in this city where he had since practiced. He was for a time on the teaching staff of the Medical College of Virginia, and was a Mason. He had been a member of The Medical Society of Virginia since 1920 and was also a member of several other medical societies. He is survived by his wife and two children.

John Bullard had many friends who understood and loved him. Those who knew him well realized that his passing means a loss to the city of Richmond as well as, to the profession.

THEREFORE, BE IT RESOLVED: that the Richmond Academy of Medicine express its deep sorrow in the loss of our friend and fellow member.

AND BE IT FURTHER RESOLVED: that these resolutions be recorded in the minutes of the Richmond Academy of Medicine, and that copies be sent to the family and the *Virginia Medical Monthly.*

A. S. LILLY, *Chairman*
STEWART GILMAN
CHARLES OUTLAND

Dr. Richard Ovid Rogers,

Bluefield, West Virginia, died on November 4 of a heart attack while driving home from work. He was a native of Surry County, Virginia, was seventy years of age, and a graduate of the Medical College of Virginia in 1907. He had always kept his membership in The Medical Society of Virginia. He helped organize the Clinch Valley Clinic at Richlands, the Stevens Clinic at Welch, W. Va., and collaborated in enlarging the Bluefield Sanitarium. He is survived by his wife and two children, one of them Dr. R. O. Rogers, Jr. of Philadelphia.

Dr. Robert Hay Taylor,

Of Sykesville, Maryland, died October 12. He was born in 1913 and graduated from the Medical College of Virginia in 1941. He was for a time a resident of this State. His wife and a daughter survive him.

Dr. Leroy L. Sawyer, Jr.

Prominent audiologist of Washington, D. C., died unexpectedly November 9. He was a native of Great Bridge, Virginia, and was fifty-four years of age. He graduated from the Medical College of Virginia in 1922. He was a staff surgeon at several Washington hospitals, a member of the board of trustees and a surgeon at the Episcopal Eye, Ear and Throat Hospital, and was assistant professor of otolaryngology at the George Washington University Medical School. Surviving are his wife and two daughters.

XUM